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# Technical Note

No. 18-4

*Boulder Laboratories*

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QUARTERLY RADIO NOISE DATA -  
SEPTEMBER, OCTOBER, NOVEMBER 1959

BY W. Q. CRICHLLOW, R. D. DISNEY, AND M. A. JENKINS



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U. S. DEPARTMENT OF COMMERCE  
NATIONAL BUREAU OF STANDARDS



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# NATIONAL BUREAU OF STANDARDS

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No. 18-4

September 28, 1960

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by

W. Q. Crichlow, R. T. Disney, and M. A. Jenkins

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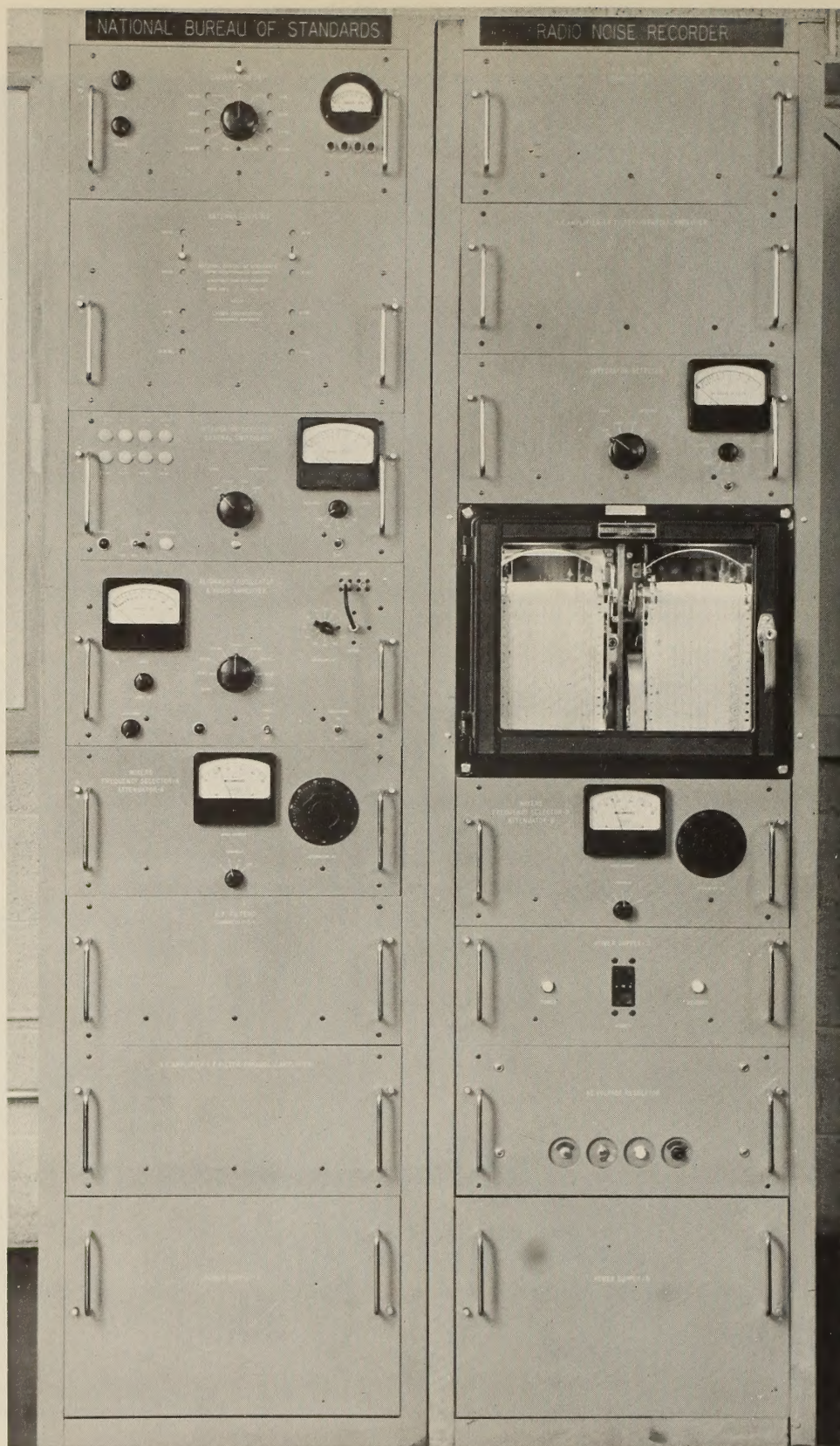






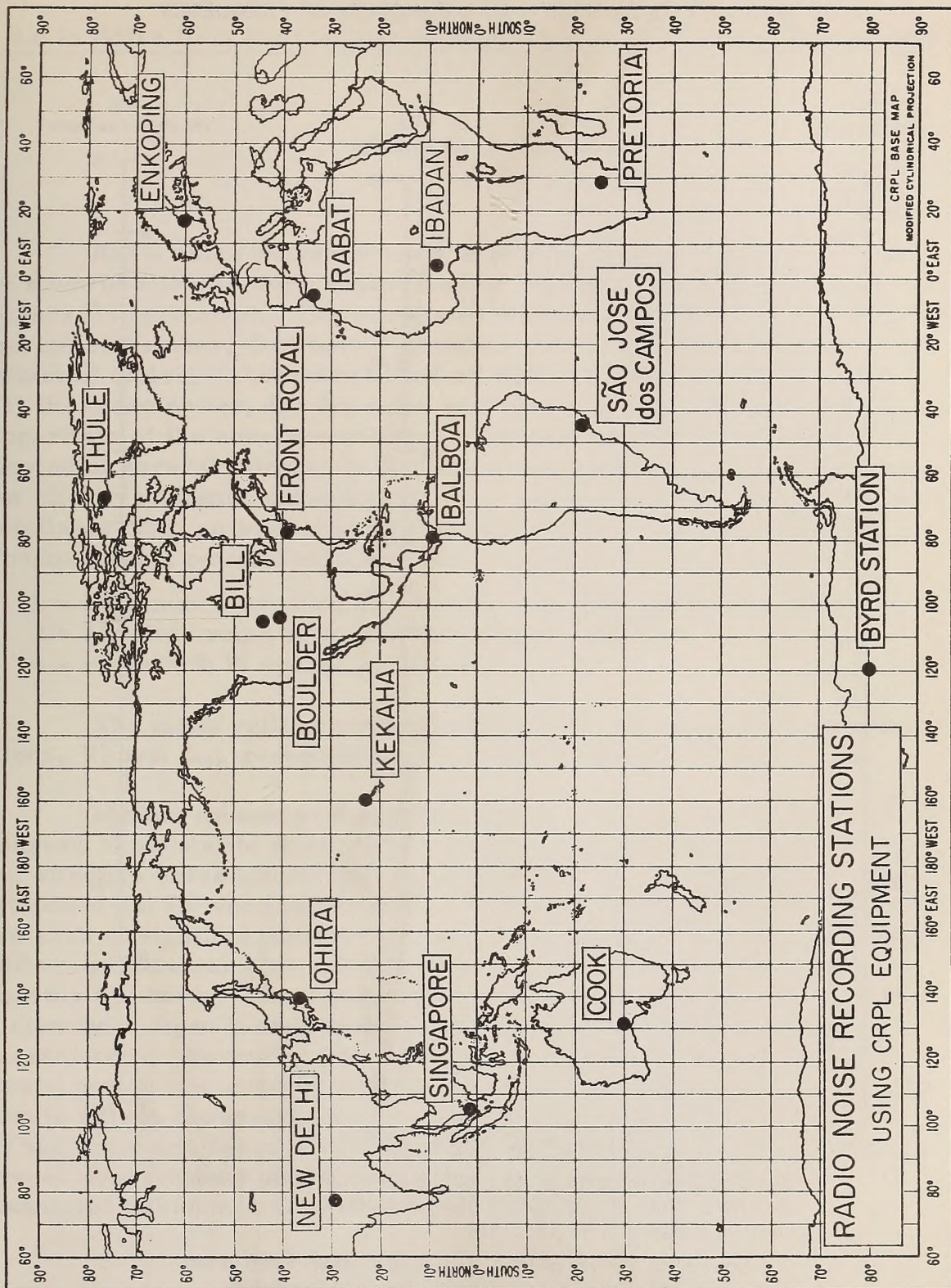
Radio Noise Recording Station





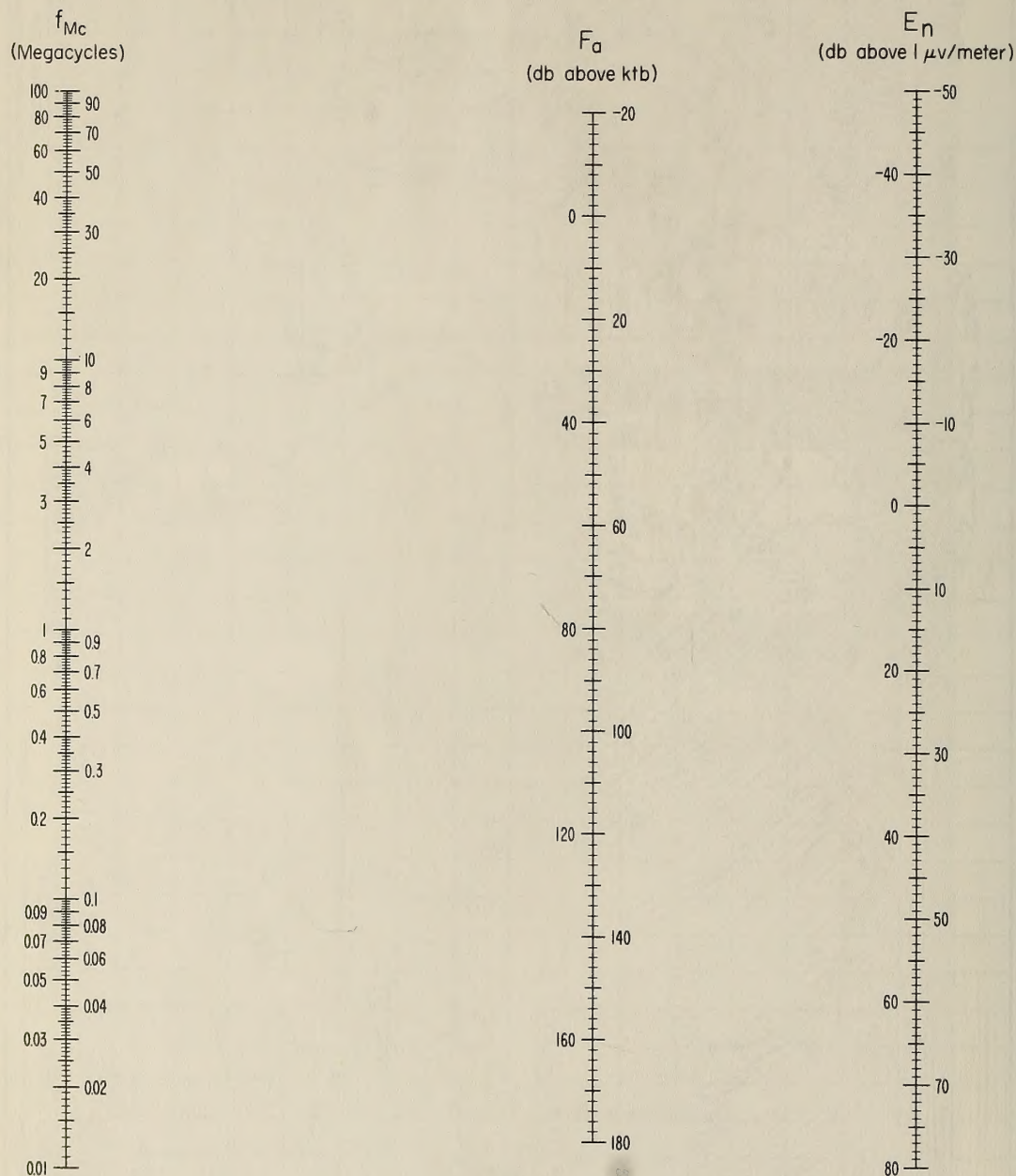
ARN-2 Atmospheric Radio Noise Recorder







# NOMOGRAM FOR TRANSFORMING EFFECTIVE ANTENNA NOISE FIGURE TO NOISE FIELD STRENGTH AS A FUNCTION OF FREQUENCY



$$E_n = F_a + 20 \log_{10} f_{Mc} - 65.5$$

$F_a$  = Effective Antenna Noise Figure = External Noise Power Available from an Equivalent Short, Lossless, Vertical Antenna in db Above ktb.

$E_n$  = Equivalent Vertically Polarized Ground Wave R.M.S. Noise Field Strength in db Above  $1 \mu v/meter$  for a 1 kc Bandwidth.

$f_{Mc}$  = Frequency in Megacycles.



## Radio Noise Data for the Season September, October, November 1959

Radio noise measurements are being made at sixteen stations in a world-wide network supervised by the National Bureau of Standards (see map). The results of these measurements for the period September, October, November 1959 are presented in the attached tables. These are based on three parameters of the noise: (1) the mean power, (2) the mean envelope voltage, and (3) the mean logarithm of the envelope voltage. The mean power averaged over a period of several minutes is the basic parameter and is expressed as an effective antenna noise figure,  $F_a$ .  $F_a$  is defined as the noise power available from an equivalent lossless antenna in db above ktb (the thermal noise power available from a passive resistance) where

$k$  = Boltzman's constant ( $1.38 \times 10^{-23}$  joules per degree Kelvin)

$t$  = Absolute room temperature (taken as  $288^\circ \text{K}$ )

$b$  = Bandwidth in cycles per second.

The mean voltage and mean logarithm are expressed as deviations,  $V_d$  and  $L_d$ , respectively, in db below the mean power.

Measurements of these parameters were made with the National Bureau of Standards Radio Noise Recorder, Model ARN-2, which has an effective noise bandwidth of about 200 cycles per second and uses a standard 21.75' vertical antenna. A fifteen-minute recording is made on each of eight frequencies two at a time during each hour, and these fifteen-minute samples are taken as representing the noise conditions for the full hour. The month-hour medians,  $F_{am}$ ,  $V_{dm}$ , and  $L_{dm}$  are determined from these hourly values for each of the corresponding parameters. Normally from twenty-five to thirty observations of the mean power are obtained monthly for each hour of the day, and from ten to fifteen observations of the voltage and logarithm deviations. When there are fewer than fifteen observations of the mean power, or seven observations of the voltage and logarithm deviations, the tabulated values are identified by an asterisk.



The upper and lower decile values of  $F_a$  are also reported in the following tabulation to give an indication of the extent of the variation of the noise power from day to day at a given time of day. These are expressed in db above and below the month-hour median,  $F_{am}$ , and designated by  $D_u$  and  $D_l$ , respectively.

Time-block median values of noise are tabulated on a seasonal basis, and are obtained by averaging all month-hour medians for the season within a particular four-hour period of the day. The time-block values conform to the seasonal-time-block values used in C.C.I.R. Report No. 65 (see attached references).

$F_a$  in db is related to the rms field strength at the antenna by the following equation:

$$E_n = F_a + 20 \log_{10} f_{Mc} - 65.5$$

where

$E_n$  = the equivalent vertically polarized ground wave rms noise field strength in db above 1  $\mu$ v/meter for a 1 kc bandwidth.  
 $f_{Mc}$  = the frequency in megacycles/second.

The nomogram given may be used for this conversion.

The values presented in the tables reflect the actual measured radio noise; in some instances the atmospheric noise level may be contaminated by man-made noise or station interference. The parameter that will first reflect any such contamination will be the logarithmic parameter,  $L_d$ . This contamination generally will cause the value of  $L_d$  to be less than it would have been, had the recorded value been only atmospheric noise. In determining the amplitude-probability distribution from the three measured moments [10], contaminated values of  $L_d$  may be found that will not give a solution of the amplitude-probability distribution. When this occurs, it is suggested that the measured value of  $L_d$  be ignored and the most probable value of  $L_d$  from the curve on the graph of  $L_d$  vs.  $V_d$  be used. The most probable value has been determined as the best fit for the integrated moments from over sixty measured amplitude-probability distributions of uncontaminated atmospheric radio noise. The second curve on the graph indicates the minimum value of  $L_d$  that will give an amplitude-probability distribution by the method in reference 10, and



can therefore be used to determine whether the measured value or the most probable value of  $L_d$  for any value of  $V_d$  should be used.

Station clocks are set to a local standard time (LST) which is taken from the time zone in which the station is located and is always an integral number of hours different than universal or Greenwich time (see table on page 5).

These preliminary data values are presented in order to expedite dissemination of the data. Additional analyses, in which an attempt is made to eliminate contaminated data, are presented in other publications.

Stations in the recording network were operated by the following agencies:

NBS - Bill, Wyoming; Boulder, Colorado; Byrd Station;  
Front Royal, Virginia; Kekaha, Hawaii

Signal Corps, U. S. Army - Balboa, C. Z.; Thule, Greenland

Postmaster General's Department (Australia) - Cook

Board of Telecommunications (Sweden) - Enköping

DSIR (Great Britain) and University College Department of  
Physics (Nigeria) - Ibadan

Ministry of Communications, Wireless Planning and  
Co-ordination Organisation - New Delhi

Radio Research Laboratories (Japan) - Ohira

Telecommunications Research Laboratory (South Africa) -  
Pretoria

Institut Scientifique Chérifien (Morocco) - Rabat

Instituto Tecnológico de Aeronautica (Brazil) - São José dos  
Campos

Department of Scientific and Industrial Research (Great Britain)  
- Singapore, Malaya

The assistance of the station operators and other personnel of these agencies in obtaining the data contained in this report is gratefully acknowledged.



The following publications contain additional information on radio noise:

1. W. Q. Crichlow, D. F. Smith, R. N. Morton, and W. R. Corliss, "Worldwide Radio Noise Levels Expected in the Frequency Band 10 Kilocycles to 100 Megacycles," NBS Circular 557, August 25, 1955.
2. "Report on Revision of Atmospheric Radio Noise Data," C. C. I. R. Report No. 65, VIIIth Plenary Assembly, Warsaw, 1956 (International Radio Consultative Committee, Secretariat, Geneva, Switzerland).
3. A. D. Watt and E. L. Maxwell, "Measured Statistical Characteristics of VLF Atmospheric Radio Noise," Proc. IRE, 45,1, 55 (1957).
4. W. Q. Crichlow, "Noise Investigation at VLF by the National Bureau of Standards," Proc. IRE, 45,6, 778 (1957).
5. A. D. Watt and E. L. Maxwell, "Characteristics of Atmospheric Noise from 1 to 100 kc," Proc. IRE, 45,6, 787 (1957).
6. F. F. Fulton, Jr., "The Effect of Receiver Bandwidth on Amplitude Distribution of V. L. F. Atmospheric Noise," National Bureau of Standards, VLF Symposium Paper 37, Boulder, Colorado, 1957.
7. H. E. Dinger, "Report on URSI Commission IV - Radio Noise of Terrestrial Origin," Proc. IRE, 46,7, 1366 (1958).
8. A. D. Watt, R. M. Coon, E. L. Maxwell, and R. W. Plush, "Performance of Some Radio Systems in the Presence of Thermal and Atmospheric Noise," Proc. IRE, 46,12, 1914 (1958).
9. W. L. Taylor and A. G. Jean, "Very-Low-Frequency Radiation Spectra of Lightning Discharges," NBS J. of Research-D. Radio Propagation, 63D,2, 199 (1959).
10. W. Q. Crichlow, C. J. Roubique, A. D. Spaulding, and W. M. Beery, "Determination of the Amplitude-Probability Distribution of Atmospheric Radio Noise from Statistical Moments," NBS J. Research-D. Radio Propagation, 64D,1, 49 (1960).
11. Tatsuzo Obayashi, "Measured Frequency Spectra of Very-Low-Frequency Atmospherics," NBS J. of Research-D. Radio Propagation, 64D,1, 41 (1960).



Data included in this report and the standard time for each station are as follows:

Station	Data	Time Zone	To Convert LST to GMT (hours)
Balboa	Sept. Oct. Nov. 1959	75 W	+05
Bill	Sept. Oct. Nov. 1959	105 W	+07
Boulder	Sept. Oct. Nov. 1959	105 W	+07
Byrd Station	Sept. Nov. 1959	120 W	+08
Cook	Sept. Oct. Nov. 1959	135 E	-09
Enkoping	Sept. Oct. Nov. 1959	15 E	-01
Front Royal	Sept. Oct. Nov. 1959	75 W	+05
Kekaha	Sept. Oct. Nov. 1959	150 W	+10
Ohira	Sept. Oct. Nov. 1959	135 E	-09
Pretoria	Sept. Oct. Nov. 1959	30 E	-02
Rabat	Oct. Nov. 1959	GMT	0
São José dos Campos	Sept. Oct. Nov. 1959	45 W	+03
Singapore	Sept. Oct. Nov. 1959	105 E	-07
Thule	Sept. 1959	75 W	+05

Previous data from the NBS World Wide Network have been published in the following Technical Note 18 series:

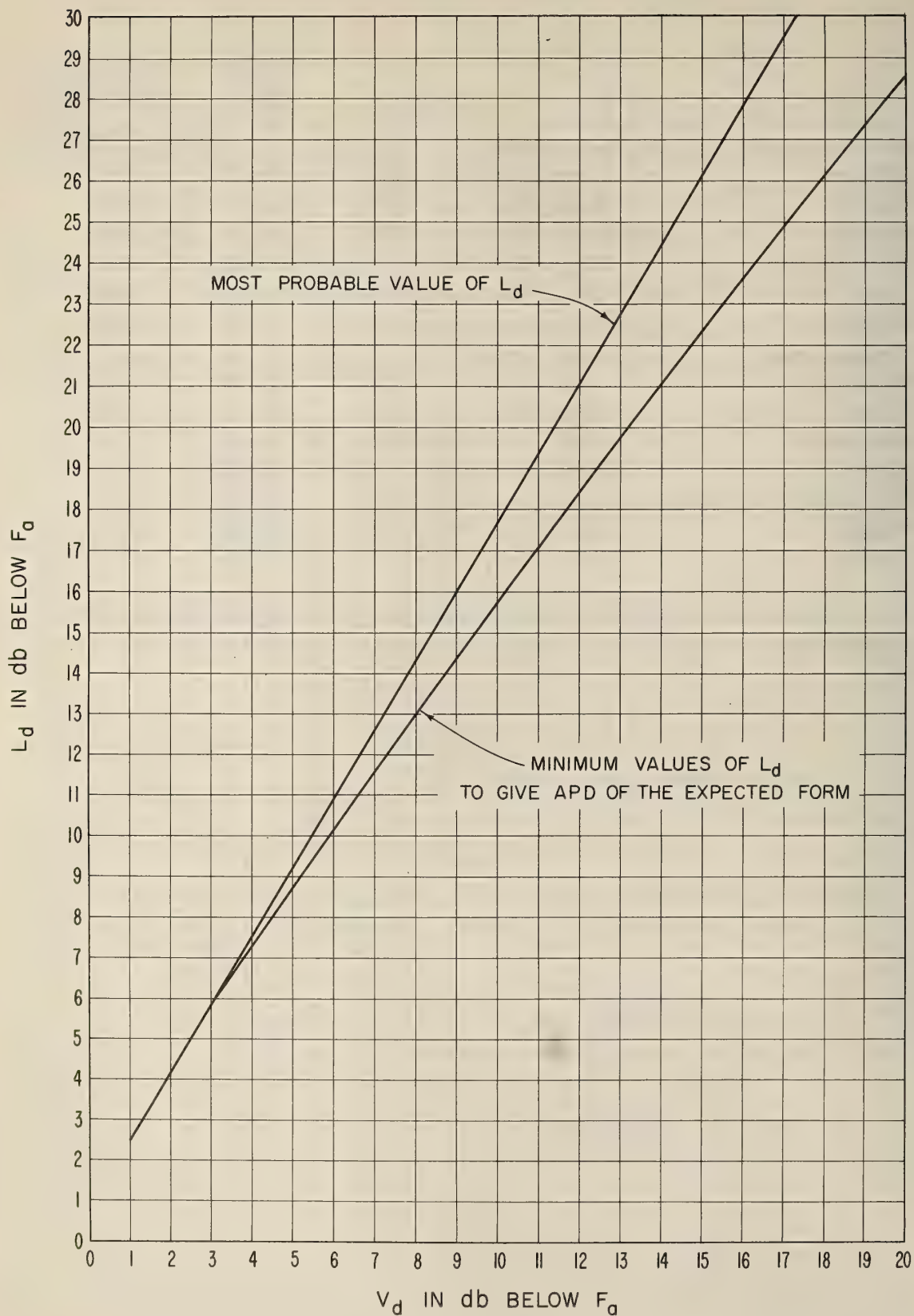
18-1 July 1, 1957 - December 31, 1958

18-2 March, April, May 1959

18-3 June, July, August 1959



MOST PROBABLE AND MINIMUM VALUES OF  $L_d$  VERSUS  $V_d$   
FOR ATMOSPHERIC RADIO NOISE





# MONTH-HOUR VALUES OF RADIO NOISE

Station Balboa, Canal Zone Lat. 9.0 N Long. 79.5 W Month September 19 59

Hour (LST)	Frequency (Mc)											
	.051				.113				.246			
	Fam	Du	Dg	Vdm	Ldm	Fam	Du	Dg	Vdm	Ldm	Fam	Du
00	144	5	3	9.5	16.0	130	6	2	9.0	15.0	116	5
01	145	4	6	10.0	16.5	132	5	5	8.5	14.5	117	5
02	147	4	6	10.5	18.0	134	4	7	9.5	15.0	117	7
03	147	4	4	10.5	18.0	135	3	6	9.0	15.5	118	5
04	147	4	4	11.5	19.0	136	4	9	10.0	16.5	119	6
05	147	6	8	12.0	21.0	135	5	7	11.0	18.5	119	6
06	146	9	9	16.5	25.0	134	6	11	16.0	26.0	117	9
07	147	6	8	17.0	26.5	134	6	11	17.0	29.0	119	6
08	145	9	12	18.0	28.5	132	6	12	18.0	28.5	115	8
09	143	8	12	16.5	27.0	130	8	16	17.5	28.0	113	9
10	143	6	10	15.0	25.0	128	8	16	18.0	29.5	111	12
11	143	6	10	16.0	24.5	130	6	20	18.0	27.0	113	9
12	139	10	6	12.0	20.0	128	9	14	16.0	26.0	112	11
13	143	10	8	14.0	21.5	131	12	9	16.0	26.0	117	12
14	144	14	5	12.5	19.0	132	11	8	13.0	21.5	119	11
15	145	10	8	10.0	15.0	132	8	12	13.0	22.5	118	8
16	144	7	7	10.5	16.0	131	7	10	12.5	19.0	113	11
17	141	8	4	10.5	15.5	128	9	8	12.0	21.0	110	12
18	143	5	8	10.0	15.5	126	10	6	7.5	14.0	109	10
19	141	4	2	8.0	14.0	126	8	2	7.0	12.0	111	7
20	143	4	4	10.0	16.0	128	8	5	7.5	13.0	111	8
21	143	4	4	9.5	15.5	128	6	3	7.5	12.0	113	5
22	145	2	8	8.5	15.0	130	5	5	7.5	12.0	113	7
23	145	3	6	9.5	15.0	130	5	4	8.0	13.5	115	4

Fam = median value of effective antenna noise in db above ktb

Du = ratio of upper decile to median in db

Dg = ratio of median to lower decile in db

Vdm = median deviation of average voltage in db below mean power

Ldm = median deviation of average logarithm in db below mean power

USCIB-481-14

RN-13





# MONTH-HOUR VALUES OF RADIO NOISE

Station Balboa, Canal Zone Lat. 9.0 N Long. 79.5 W

Month November 19 59

Hour (LST)	Frequency (Mc)																																											
	.051												.113												.246																			
	F <sub>m</sub>	D <sub>f</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>f</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>f</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>f</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>f</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>f</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>f</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>f</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>f</sub>	V <sub>dm</sub>	L <sub>dm</sub>								
00	135	15	6	130	220	124	14	7	90	140	111	10	6	90	170		63	8	7	60	110	58	4	8	55	100	41	4	4	50	85	*	25	*	40	60								
01	137	12	6	115	180	126	10	7	90	140	111	7	6	75	140		66	6	9	75	135	58	4	4	65	110	41	4	6	40	80	*	23	*	25	40								
02	137	14	7	110	205	126	11	8	100	150	113	5	10	80	165		65	8	7	75	135	58	5	5	50	90	38	7	4	55	80	23	*	30	45									
03	139	10	10	130	210	126	9	8	100	150	111	6	7	95	180		67	6	8	65	125	58	2	6	65	115	37	4	4	45	70	23	*	15	30									
04	139	10	8	125	180	126	6	9	90	140	108	8	8	100	195		65	8	6	75	140	56	4	5	75	115	36	4	5	40	65	*	23	*	20	35								
05	139	6	10	110	180	124	8	8	110	145	107	5	15	130	210		65	7	8	90	170	56	4	4	65	105	36	7	5	55	85	*	23	*	15	30								
06	133	8	8	130	205	116	10	15	180	270	91	15	13	180	2300		56	5	7			52	4	5	70	120	41	6	4	40	75	*	27	*	30	50								
07	129	8	6	125	190	106	22	18	115	165	85	26	8	130	230		45	7	17	145	200	42	7	10	95	150	36	7	6	50	90	*	25	*	40	60								
08	129	12	12	140	240	108	22	20	110	150	89	24	10	130	230		34	19	10	95	140	34	14	10	90	130	31	7	8	85	125	*	23	*	30	45								
09	127	15	11	160	260	104	22	14	120	195	87	26	4	80	180		33	13	12	70	130	26	14	8	90	130	29	4	12	70	100	*	25	*	45	65								
10	128	13	11	140	235	108	18	16	100	175	87	27	4	80	180		27	17	6	95	115	24	16	6	65	90	25	8	10	85	140	*	23	*	35	50								
11	131	12	12	120	190	109	18	14	130	210	91	29	6	65	180		27	34	6	35	70	24	26	8	35	55	23	16	8	65	185	*	23	*	35	50								
12	131	14	8	130	220	116	20	16	135	175	93	28	8	85	175		28	30	7	65	115	28	30	12	30	50	25	16	8	80	135	*	25	*	35	60								
13	135	15	8	110	190	122	17	20	170	250	103	16	18	170	255		33	46	12	70	95	32	32	14	75	55	29	13	13	120	180	*	27	*	40	60								
14	139	11	13	135	210	123	17	20	160	260	109	17	21	130	210		45	33	22	720	210	38	24	18	90	135	35	13	10	70	130	*	29	*	35	60								
15	139	12	11	110	195	126	14	22	180	275	105	20	19	90	185		47	36	21	145	255	40	27	14	95	75	35	16	5	85	145	*	29	*	40	65								
16	138	9	10	135	200	124	11	19	160	255	105	18	16	115	210		45	23	15	125	220	43	11	9	80	130	39	9	3	55	90	*	29	*	40	65								
17	135	9	9	130	190	117	16	15	130	190	100	19	10	80	150		49	12	10	90	180	52	4	5	60	105	43	10	4	45	75	*	29	*	40	60								
18	137	7	11	140	220	122	10	8	85	140	107	13	8	100	170		59	4	10	75	140	58	2	6	65	100	45	3	5	50	80	*	29	*	40	60								
19	139	5	9	95	175	124	7	7	95	145	109	4	8	80	145		62	5	3	80	135	58	4	5	55	80	45	5	4	40	75		27	*	40	60								
20	137	6	7	115	190	122	9	6	85	140	108	7	6	70	140		63	4	6	70	115	58	6	4	50	80	43	4	4	50	90	*	27	*	40	65								
21	137	8	9	110	180	122	8	7	85	155	109	7	6	85	150		63	5	6	75	125	58	6	3	45	80	43	4	6	45	75	*	25	*	35	55								
22	137	8	7	120	190	124	8	8	85	150	109	8	7	75	135		63	6	6	90	150	58	4	6	60	100	43	4	5	45	75	*	25	*	35	55								
23	136	13	7	120	205	124	12	8	90	130	111	6	7	90	155		63	7	6	80	140	58	4	6	60	100	43	3	5	45	75	*	25	*	30	50								

F<sub>m</sub> = median value of effective antenna noise in db above ktb

D<sub>g</sub> = ratio of upper decile to median in db

V<sub>dm</sub> = ratio of median to lower decile in db

L<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

USCNR-13

RN-13





# MONTH-HOUR VALUES OF RADIO NOISE

Station Bill, Wyoming

Lat. 43.2N Long. 105.2 W

Month October 19 59

Hour (ST)	Frequency (Mc)											
	.051			.113			.246			.495		
	F <sub>am</sub> <sup>+</sup>	D <sub>u</sub>	V <sub>dm</sub> L <sub>dm</sub>	F <sub>am</sub> <sup>+</sup>	D <sub>u</sub>	V <sub>dm</sub> L <sub>dm</sub>	F <sub>am</sub> <sup>+</sup>	D <sub>u</sub>	V <sub>dm</sub> L <sub>dm</sub>	F <sub>am</sub> <sup>+</sup>	D <sub>u</sub>	V <sub>dm</sub> L <sub>dm</sub>
00	30			115			101			89		
01	30			115			101			87		
02	30			115			99			81		
03	28			115			97			83		
04	28			113			93			77		
05	24			103			85			61		
06	24			97			77			53		
07	18			95			77			49		
08	14			94			82			49		
09	14			89			81			55		
10	16			93			77			51		
11	16			87			77			51		
12	16			89			79			53		
13	20			89			85			59		
14	22			102			86			59		
15	22			107			89			65		
16	20			107			87			69		
17	23			107			92			75		
18	26			114			97			79		
19	27			114			96			83		
20	30			115			99			85		
21	28			115			99			85		
22	28			115			99			85		
23	30			115			101			85		

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power



# MONTH-HOUR VALUES OF RADIO NOISE

Station Bill, Wyoming

Lat. 43.2 N Long. 105.2 W

Month November 19 59

Hour (EST)	Frequency (Mc)											
	.051			.113			.246			.495		
	F <sub>am</sub>	D <sub>u</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	L <sub>dm</sub>
00	126			114			96			83		
01	124			112			93			83		
02	126			112			92			82		
03	124			109			88			79		
04	122			110			86			72		
05	122			103			82			65		
06	118			98			82			62		
07	112			92			78			60		
08	108			92			78			58		
09	109			90			78			59		
10	114			92			80			57		
11	134			132			82			70		
12	107			90			80			51		
13	106			93			76			55		
14	106			92			78			54		
15	106			96			76			56		
16	108			96			80			56		
17	118			106			80			59		
18	122			110			87			65		
19	122			112			88			70		
20	123			110			90			75		
21	124			110			90			79		
22	123			110			94			82		
23	126			112			92			82		

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>am</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power





# MONTH-HOUR VALUES OF RADIO NOISE

Station Boulder, Colorado

Lat. 40.1 N Long. 105.1 W

Month October

19 59

Hour (EST)	Frequency (Mc)											
	.013				.051				.160			
	F <sub>am</sub>	D <sub>z</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>z</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>z</sub>	V <sub>dm</sub>	L <sub>dm</sub>
00	157 8	4	12.0	19.5	132 8	6	11.0	17.5	109 9	8	9.0	17.0
01	157 8	2	11.0	18.0	130 9	7	10.5	16.0	108 8	7	9.5	17.0
02	157 5	4	11.5	18.5	130 8	6	11.0	18.5	106 9	6	9.0	17.0
03	157 6	4	12.5	20.0	130 7	6	11.0	18.5	104 10	4	10.5	19.0
04	157 6	4	12.0	20.0	126 11	5	11.0	19.0	102 10	12	14.0	22.0
05	155 7	4	12.0	19.5	122 10	6	11.0	18.0	86 6	9	10.0	15.5
06	155 7	4	12.0	19.0	120 10	7	10.5	18.5	76 24	6	7.0	10.0
07	153 7	3	13.0	20.0	118 12	7	12.0	20.5	74 28	4	4.0	6.0
08	153 7	5	13.0	19.5	118 12	10	12.5	20.5	76 23	6	3.5	6.5
09	155 7	5	13.0	19.5	116 12	10	12.5	20.5	76 22	6	4.0	12.5
10	155 5	4	12.0	19.0	121 7	11	12.0	20.0	82 16	10	5.5	9.0
11	155 4	4	11.0	18.0	121 9	9	11.0	18.5	84 18	12	7.5	14.0
12	155 6	4	9.5	16.0	120 10	8	10.0	17.0	82 20	11	8.0	15.0
13	155 8	4	10.0	16.5	122 9	10	9.0	16.5	84 22	12	7.5	16.5
14	159 3	8	10.0	17.0	124 8	12	9.5	17.5	89 19	19	8.0	14.5
15	157 5	6	11.0	17.5	122 12	8	11.0	17.5	85 24	14	11.0	17.5
16	157 4	8	11.0	18.5	124 9	9	11.0	19.0	88 22	15	7.0	15.0
17	156 6	5	12.0	19.0	124 10	8	10.0	17.5	100 10	7	8.0	14.0
18	157 4	5	12.0	20.0	126 11	2	9.0	17.0	106 9	8	8.0	16.0
19	157 6	4	12.0	19.5	130 10	4	8.5	16.0	106 10	7	7.0	15.0
20	157 6	4	12.5	20.5	130 9	4	9.0	15.0	106 9	6	7.5	15.0
21	157 5	3	12.0	20.0	130 10	4	9.0	16.0	108 10	7	7.5	14.5
22	157 6	4	12.0	19.0	132 8	6	9.0	15.0	108 10	8	8.0	15.5
23	157 7	4	11.5	19.0	131 10	5	9.0	17.0	109 8	7	8.0	15.5

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>z</sub> = ratio of upper decile to median in db

V<sub>dm</sub> = ratio of median to lower decile in db

L<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

150000-100-10

RN-13

# MONTH-HOUR VALUES OF RADIO NOISE

Station Boulder, Colorado Lat 40.1 N Long 105.1 W Month November 19 59

Hour (LST)	Frequency (Mc)											
	.013				.051				.160			
	Fam	Du	D <sub>2</sub>	V <sub>dm</sub>	L <sub>dm</sub>	Fam	Du	D <sub>2</sub>	V <sub>dm</sub>	L <sub>dm</sub>	Fam	Du
00	151	5	2	9.0	14.5	124	8	6	10.0	17.0	100	10
01	151	6	2	9.0	16.0	124	8	6	9.5	17.0	100	12
02	151	6	2	9.5	16.0	124	8	4	9.0	17.0	98	10
03	151	4	2	10.5	17.5	124	8	4	9.5	16.5	94	14
04	151	4	3	11.5	19.0	122	10	6	10.0	18.0	92	16
05	151	4	3	10.5	17.5	122	5	8	10.0	18.0	87	19
06	151	2	5	11.0	17.5	120	4	6	11.0	19.0	78	17
07	149	4	2	10.5	17.0	112	10	2	11.5	18.5	74	16
08	147	4	2	11.0	18.0	108	12	6	12.5	20.0	72	14
09	147	4	4	11.5	18.0	108	7	8	12.0	19.5	71	14
10	147	5	4	10.0	17.0	108	10	9	13.0	20.0	70	27
11	147	4	6	10.0	16.0	109	8	8	11.0	17.5	70	18
12	149	4	8	10.0	16.5	110	12	9	12.0	20.5	71	15
13	149	6	8	9.5	16.0	110	10	9	11.0	19.0	72	10
14	149	5	5	10.5	17.5	110	7	12	10.0	19.0	74	17
15	147	5	6	11.0	18.5	111	11	13	11.0	19.0	76	15
16	147	4	6	12.0	18.5	112	10	9	10.5	19.0	88	10
17	148	7	5	11.0	18.5	120	6	9	9.0	16.0	88	6
18	149	6	6	12.0	19.5	122	7	8	8.5	16.5	96	12
19	151	4	7	12.0	19.0	124	5	9	8.5	16.5	97	9
20	151	4	6	11.5	19.5	124	7	9	9.5	17.0	98	12
21	151	4	6	10.5	18.0	123	8	6	10.0	18.0	98	14
22	151	4	4	10.0	17.5	123	9	6	10.0	18.0	98	8
23	151	5	4	9.5	15.0	124	8	7	10.0	19.0	100	12

F<sub>am</sub> = median value of effective antenna noise in db above k1b

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>2</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

UCS-100-105-1-1

RN-13



# MONTH-HOUR VALUES OF RADIO NOISE

Station Byrd Station, Ant.

Lat. 80.0 S

Long. 120.0 W

Month September 19 59

Hour (LST)	Frequency (Mc)											
	.051				.113				.246			
	F <sub>am</sub>	D <sub>u</sub>	D <sub>z</sub>	V <sub>dm</sub> L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>z</sub>	V <sub>dm</sub> L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>z</sub>	V <sub>dm</sub> L <sub>dm</sub>
00	103	3	2		76	8	2		61	4	4	
01	103	4	2		76	10	2		61	4	6	
02	103	4	4		78	4	5		61	4	6	
03	103	2	2		76	4	4		59			
04	101	2	3		78				57			
05	101	2	15		76	2	4		59		8	
06	101	4	3		76	6	4		63	2	6	
07	101	3	3		78	4	4		63	2	5	
08	101	0	2		76	4	4		63	2	7	
09	99	1	2		74	5	4		63	2	6	
10	99	2	2		76	4	3		63	2	8	
11	99	2	2		76	6	4		63	3	6	
12	99	1	2		78	5	6		62	3	5	
13	99	2	3		76				62	3		
14	99	2	2		78				63			
15	99	3	2		80				59		5	
16	99	4	2		78				62	3	5	
17	101	2	3		76	2	4		62	3	6	
18	101	2	2		76	4	4		63	2	6	
19	101	4	2		78	4	8		61	4	4	
20	101	4	2		76	6	2		63	4	4	
21	103	2	2		76	5	4		61	4	4	
22	103	4	2		76	5	4		63	4	5	
23	103	3	2		76	6	2		63	2		

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>z</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

# MONTH-HOUR VALUES OF RADIO NOISE

Station Byrd Station, Ant.

Lat. 80.0 S Long. 120.0 W

Month November 19 59

Hour (LST)	Frequency (Mc)											
	.051			.113			.246			.545		
	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>
00	103	2	4	72	10	2	66	2	8	60	7	5
01	103	1	4	74	4	4	64	4	8	59	7	9
02	103	2	4	74	4	6	64	2	8	60	7	11
03	103	2	4	75	9	5	64	2	5	60	8	8
04	103	2	4	76	10	8	61			64	4	9
05	103	2	4	76	4	6	64			61	8	15
06	103	2	4	75	6	7	65	5	5	60	7	12
07	103	0	6	72	7	4	66	1	8	60	9	10
08	101	3	4	74	7	4	64	4	4	62	6	13
09	101	2	0	74	7	6	64	4	6	63	5	13
10	103	3	4	74	6	4	66	2	7	60	9	12
11	103	1	4	72	6	2	66	0	6	58	11	8
12	103	2	4	74	6	4	62	4	4	60	8	10
13	103	2	4	74	10	4	63	4	2	60	6	6
14	103	2	4	76	7	3	62	4	3	62	5	8
15	103	2	4	74			63			64	4	6
16	103	0	4	78			60	6	2	60	10	6
17	103	2	2	73	7	5	64	4	7	60	6	4
18	103	2	2	74	6	4	64	4	6	60	6	8
19	103	2	2	74	8	4	66	2	7	58	9	3
20	103	2	2	74	9	4	64	4	6	58	5	8
21	103	2	2	74	5	3	66	1	8	58	8	6
22	103	5	2	74	4	4	66	2	6	62	5	9
23	103	2	2	75	4	5	64	4	4	60	6	10

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>am</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

USCMB-NPS-11

RN-13



# MONTH-HOUR VALUES OF RADIO NOISE

Station Cook, Australia

Lat. 30.6 S Long. 130.4 E

Month September 19 59

Hour (LST)	Frequency (Mc)											
	.013				.051				.160			
	F <sub>m</sub>	D <sub>2</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>2</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>2</sub>	V <sub>dm</sub>	L <sub>dm</sub>
00	155	1	2	7.0	115	128	2	2	7.5	135	101	7
01	155	2	2	6.5	110	128	3	2	7.5	135	100	7
02	155	2	1	7.0	120	128	3	2	8.0	130	100	9
03	155	2	2	7.5	125	128	2	2	7.0	130	100	6
04	155	2	2	7.5	130	125	3	2	8.0	135	98	6
05	155	2	2	9.0	150	126	3	2	8.0	130	96	7
06	155	2	2	8.5	145	122	4	2	8.0	130	83	12
07	153	2	2	9.0	145	116	6	5	8.0	130	64	25
08	151	3	2	8.5	145	111	10	3	9.0	150	64	28
09	151	2	2	9.0	150	112	10	6	10.5	180	66	32
10	151	3	2	11.0	180	112	10	3	13.5	220	68	30
11	151	2	2	11.5	180	114	8	4	13.0	220	66	30
12	149	4	2	12.0	195	114	8	4	12.0	205	69	27
13	151	2	4	12.5	200	116	7	6	12.0	210	72	22
14	151	3	2	11.5	190	116	10	4	10.5	195	78	24
15	152	3	1	10.5	170	118	6	5	12.0	210	70	24
16	153	2	2	9.0	160	114	10	4	9.0	160	74	35
17	153	2	2	8.5	140	116	9	6	8.0	150	84	16
18	151	4	2	8.0	140	116	16	4	10.0	170	94	17
19	153	2	3	8.5	140	122	7	3	9.5	155	96	10
20	153	4	1	8.0	140	126	4	5	8.5	160	99	8
21	155	2	3	8.0	130	126	4	2	8.0	150	100	7
22	153	4	1	7.5	115	126	4	2	8.0	140	100	9
23	153	4	1	7.5	125	128	2	2	8.5	145	100	7

F<sub>m</sub> = median value of effective antenna noise in db above ktb

D<sub>2</sub> = ratio of upper decile to median in db

V<sub>dm</sub> = ratio of median to lower decile in db

L<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

USCDA-MRS-RL

RN-13

# MONTH-HOUR VALUES OF RADIO NOISE

Station Cook, Australia

Lat. 30.6 S Long. 130.4 E

Month October

19 59

Hour (LST)	Frequency (Mc)											
	.013				.051				.160			
	Fam	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	Fam	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	Fam	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>
00	157	2	3	7.0 12.5	130	4	5	9.5 17.0	105	6	9	7.5 17.0
01	157	2	4	7.0 12.0	130	4	4	8.5 14.5	105	6	6	7.5 14.0
02	157	2	3	7.0 11.5	130	4	2	8.5 14.5	105	4	7	6.5 13.5
03	157	2	2	7.5 13.0	130	4	4	8.5 15.0	105	6	6	8.0 15.0
04	157	2	2	8.5 14.5	128	4	3	9.0 15.0	91	9	4	6.0 12.5
05	157	2	4	8.5 15.0	126	6	2	9.0 15.0	95	10	7	8.0 14.0
06	154	3	3	9.0 15.5	121	3	6	8.0 15.5	83	14	17	12.5 23.0
07	153	0	2	9.5 16.0	116	6	5	10.0 16.0	77	21	16	14.5 24.0
08	151	3	2	10.0 17.0	113	1	3	13.0 21.0	77	24	13	13.0 23.5
09	151	4	2	12.0 19.0	116	10	6	13.0 22.0	75	21	12	11.0 19.0
10	151	4	3	12.0 19.5	116	10	2	13.0 23.0	75	30	11	10.5 20.5
11	151	8	2	12.5 20.0	120	6	6	12.0 21.5	82	24	19	9.5 19.5
12	153	4	4	11.5 19.0	120	6	8	8.5 16.5	84	21	18	8.0 15.0
13	153	6	4	11.5 20.0	124	6	6	9.5 16.5	85	20	11	7.0 15.0
14	155	5	2	9.0 17.0	125	8	6	7.0 13.0	91	16	18	6.0 12.5
15	155	6	2	9.5 16.0	126	7	6	8.0 16.0	84			7.0 15.5
16	155			10.0 17.0	123	10	9	7.5 15.0	92	18	17	4.0 18.0
17	156	3	4	9.0 15.5	122	10	6	8.0 15.5	93	15	17	8.5 17.5
18	155	2	2	9.0 15.0	124	7	7	7.0 14.5	103	10	13	7.0 15.0
19	155	3	4	9.0 16.0	130	4	6	9.0 16.5	105	9	9	7.5 19.0
20	157	2	4	9.0 15.5	130	4	6	8.0 16.0	105	8	10	7.5 15.0
21	157	2	4	9.0 14.5	130	4	4	9.0 16.0	103	6	8	7.0 16.0
22	157	2	4	8.0 13.5	130	4	4	9.0 16.0	103	8	6	7.5 16.0
23	157	2	4	7.5 12.5	130	4	4	9.5 16.5	103	8	5	8.0 15.0

Fam = median value of effective antenna noise in db above ktb  
 Du = ratio of upper decile to median in db  
 D<sub>g</sub> = ratio of median to lower decile in db  
 V<sub>dm</sub> = median deviation of average voltage in db below mean power  
 L<sub>dm</sub> = median deviation of average logarithm in db below mean power

US COMNAV-14

RN-13



# MONTH-HOUR VALUES OF RADIO NOISE

Station Cook, Australia

Lat. 30.6 S Long. 130.4 E

Month November 19 59

Hour (LST)	.013										.051										.160										.545										Frequency (Mc)										2.5										5										10										20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	.013										.051										.160										.545										Frequency (Mc)										2.5										5										10										20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df	Vdm	Ldm	Fam	Du	Df

# MONTH-HOUR VALUES OF RADIO NOISE

Station Enköping, Sweden Lat. 59.5 N Long. 17.3 E

Month September 19 59

Hour (ST)	Frequency (Mc)											
	.051				.246 **				.545			
	F <sub>am</sub> <sup>+</sup>	D <sub>g</sub>	V <sub>dm</sub> <sup>+</sup>	L <sub>dm</sub> <sup>+</sup>	F <sub>am</sub> <sup>+</sup>	D <sub>g</sub>	V <sub>dm</sub> <sup>+</sup>	L <sub>dm</sub> <sup>+</sup>	F <sub>am</sub> <sup>+</sup>	D <sub>g</sub>	V <sub>dm</sub> <sup>+</sup>	L <sub>dm</sub> <sup>+</sup>
00	21		3.0 5.0		81				50		4.0 8.5	54
01	21		8.0 12.0		85				52		2.5 6.0	52
02	19		11.0 13.5		81		7.0 10.0		52		3.0 7.0	54
03	18		7.0 11.0		82		6.5 10.5		54		3.0 8.0	55
04	17		8.5 13.5		79		9.0 14.0		54		4.0 8.5	55
05	14		6.5 11.0		68		8.0 9.5		53		3.5 6.5	50
06	12		8.0 12.5		94		7.0 13.0		55		5.0 9.5	36
07	11		8.0 12.0		91				32		7.0 10.0	34
08	109		13.0 18.0						30			32
09	109								25			30
10	111								30			28
11	111								26			28
12	112		9.5 13.5						34		8.0 11.5	29
13	115		11.0 14.5						36			28
14	113		12.0 15.5						34			34
15	113		13.0 17.0						40			36
16	115		9.5 12.5						35		11.5 16.5	38
17	115		10.0 12.5						44			42
18	116		9.5 12.0						47		10.0 12.5	47
19	117		8.5 12.0						52		6.0 9.5	46
20	117		9.5 12.5						53			44
21	119		9.5 12.0						49		5.5 9.0	44
22	119		6.0 7.0						47		12.0 15.5	42
23	119		6.5 10.0						49		7.5 9.0	42
									51		11.0 13.0	42

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>g</sub> = ratio of upper decile to median in db

D<sub>g</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

\* \* Interference Kalungborg Broadcast station from 0800 through 2300.

USCARS-REC-14

RN-13





# MONTH-HOUR VALUES OF RADIO NOISE

Station Enköping, Sweden Lat. 59.5N Long. 17.3 E Month November 19 59

Hour (LST)		Frequency (Mc)																																
		.051				.246				.545				2.5				5				10				20								
		F <sub>am</sub>	D <sub>u</sub>	D <sub>f</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>f</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>f</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>f</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>f</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>f</sub>	V <sub>dm</sub>	L <sub>dm</sub>			
00	119	4	8	8.0	130*	78	7	7	6.5	11.5	77	6	8	30	6.5	50	49				5.5	9.0	37			5.5	8.5	21	0	2	0.5	2.5		
01	117	4	6	7.0	16.0	77	7	6	6.0	11.5	68	6	4	5.0	9.0	49	49				4.5	10.0	39			0.5	3.5	19	2	0	0.5	3.0		
02	117	4	6	9.0	15.0	79	4	9	8.0	13.0	68	4	7	4.5	9.5	48	47				6.0	9.0	33			4.5	6.5	19	2	0	0.5	3.0		
03	117	4	6	8.5	15.0	79	2	10	7.0	12.5	66	6	4	3.0	7.0	48	49						33	10	6	2.5	4.5	19	2	0	0.5	3.0		
04	117	4	6	10.0	15.5	75	6	9	6.0	10.0	74	8	9			47	53				7.0	12.5	31			2.0	4.0	21	0	2	0.5	3.0		
05	117	4	7	11.5	17.0	76	5	7	9.0	13.5	76	8	7	7.0	15.0	44	47				5.5	9.0	31			4.0	6.5	21	0	2	1.0	3.5		
06	115	6	6	11.5	18.0	99	14	31	7.5	12.0	70	8	10	7.0	14.5	43	45				3.5	9.0	33	6	6	4.5	6.5	21	0	2	0.5	3.0		
07	111	3	6	10.0	17.0	95	4	24			66	9	7	2.5	6.0	36	45				6.0	9.5	45			3.0	7.0	23	2	4	1.0	3.5		
08	107	4	8	12.0	18.0						66					34	37				3.5	5.0	37			2.0	3.0	23			4.0	7.5		
09	103			12.0	15.5						63					38	25				2.0	4.0	25			1.5	4.0	29			3.0	5.0		
10	102			10.5	17.5						63	7	5	4.0	11.5	34	23				6.5	7.0	33			3.0	5.5	25	5	2				
11	103	14	8	11.0	20.5						62	8	6	4.0	9.0	38	21				5.0	7.0	21			3.5	6.0	37			5.0	8.5		
12	103	12	10	11.0	15.0						65	11	9	3.5	8.5	40	24				2.0	4.0	24			7.0	9.5	35			2.7	4	1.5	4.5
13	101	12	9	13.0	17.5						62	12	8	4.0	8.0	42	25				4	6	3.0	5.5	35	4	4	5.5	9.0	27	3	2	2.0	4.0
14	103	10	10	11.0	16.0						65	18	6	7.0	12.0	44	27						39						29	4	4	3.5	6.0	
15	105	8	8	9.0	13.5						71	15	9			48	37				3.0	6.5	41	6	4	4.5	6.5	29	4	4	6.5	9.5		
16	107	8	8	8.5	13.0						73	7	8	0.5	1.0	44	41				3.0	5.5	41	6	2	7.0	13.0	43	2	4	3.0	5.0		
17	110	7	7	8.0	15.0						76	10	6	4.5	7.5	46	45				5.5	8.0	45											
18	115	6	7	8.0	12.0						82	10	7	5.0	10.0	47	50						43	8	4	6.0	9.5	23	6	2	3.0	4.0		
19	116	7	6	10.0	14.0						81	8	6	8.5	15.0	48	51						43	8	4	2.0	5.0	21	6	2	3.0	5.0		
20	117	6	7	9.0	14.5						84	8	10	6.0	10.0	49	51				4.5	6.5	51			5.5	9.0	21	2	2	1.0	3.5		
21	117	8	8	8.0	13.0						82	10	6			51	51				6.0	10.0	51			2.0	4.0	21	0	2	0.5	3.0		
22	115	8	4	10.0	14.5						84					51	51				4.0	8.5	51			5.0	7.0	19	2	0	1.0	3.5		
23	117	6	6	9.0	14.0						78	6	6			52	50				5.5	10.0	50			3.0	6.0	21	0	2	1.0	3.5		

F<sub>am</sub> = median value of effective antenna noise in db above ktb  
D<sub>u</sub> = ratio of upper decile to median in db  
D<sub>g</sub> = ratio of median to lower decile in db  
V<sub>dm</sub> = median deviation of average voltage in db below mean power  
L<sub>dm</sub> = median deviation of average logarithm in db below mean power

\* \* Interference Kalungborg Broadcast station from 0800 through 2300.

USCIB-11-1-1

RN-13



# MONTH-HOUR VALUES OF RADIO NOISE

Station Front Royal, Virginia Lat. 38.8 N Long. 78.2 W

Month September 19 59

Hour (EST)	Frequency (Mc)											
	.135				.500				2.5			
	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> -L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> -L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> -L <sub>dm</sub>
00	112	11	4		84	9	5		68	10	6	
01	113	7	6		83	7	4		68	8	4	
02	112	7	4		83	7	3		69	5	4	
03	113	4	5		83	7	5		69	4	4	
04	116	5	5		80	8	6		68	4	4	
05	114	5	6		74	10	6		64	8	6	
06	102	10	6		60	9	6		41	6	5	
07	99	10	7		58	10	4		35	5	7	
08	100	12	7		58	12	2		30	4	6	
09	101	12	7		59	11	2		30	2	6	
10	102	12	8		59	10	2		29	3	3	
11	103	12	6		60	10	2		30	2	5	
12	102	13	8		59	12	2		30	5	3	
13	106	11	12		62	22	5		31	16	3	
14	106	14	11		62	22	5		30	15	1	
15	104	16	9		62	24	5		31	19	2	
16	109	10	15		63	21	5		31	22	2	
17	103	13	9		62	21	4		34	16	2	
18	109	13	13		65	21	8		45	12	6	
19	113	11	9		74	13	10		64	6	6	
20	115	10	9		78	14	7		66	7	7	
21	113	10	6		82	8	9		67	8	7	
22	113	10	7		82	9	8		66	9	6	
23	112	12	5		83	10	5		68	7	6	

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

# MONTH-HOUR VALUES OF RADIO NOISE

Station Front Royal, Virginia Lat. 38.8 N Long. 78.2 W

Month October 19 59

Hour (LST)	Frequency (Mc)																								
	.135				.500				2.5				5				10				20				
	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	
00	114	5	6		86	5	4		61	10	6		59	8	4		44	2	2		23	1	0		
01	114	6	7		86	4	5		62	9	7		58	8	5		43	3	3		23	1	1		
02	114	5	7		85	5	6		63	8	8		58	7	5		43	3	3		23	0	1		
03	117	5	7		85	4	8		61	10	6		59	5	6		41	5	2		23	0	1		
04	112	6	5		79	6	8		62	7	8		57	7	5		40	6	2		23	0	1		
05	110	6	5		76	5	7		61	6	8		56	7	6		39	5	2		23	0	1		
06	101	8	6		57	10	4		47	7	9		53	4	8		39	5	3		23	1	1		
07	95	12	4		55	8	3		35	6	4		40	5	3		39	3	2		25	2	2		
08	94	14	5		56	9	3		32	3	5		33	4	3		36	2	3		26	1	3		
09	97	11	7		57	6	3		30	2	4		31	3	4		33	4	2		26	1	2		
10	96	12	6		57	6	2		29	1	4		29	2	2		32	5	2		25	2	1		
11	95	10	4		58	4	3		28	3	2		27	2	1		31	3	1		25	3	1		
12	96	13	4		57	7	3		28	3	2		27	3	1		33	4	1		25	3	1		
13	99	12	6		57	9	3		28	4	2		28	4	2		34	6	2		26	2	1		
14	99	16	5		58	12	3		29	10	2		31	6	4		37	5	3		27	2	1		
15	99	17	7		58	20	4		30	16	3		35	8	5		39	6	2		28	3	1		
16	99	18	8		60	17	5		35	15	4		44	7	7		43	4	3		29	2	1		
17	100	17	7		60	19	4		45	14	7		50	8	5		46	3	3		29	3	1		
18	107	11	5		70	15	7		55	11	7		56	5	6		48	3	3		29	3	1		
19	112	9	8		77	14	6		57	10	7		57	6	6		47	3	2		27	2	1		
20	113	10	6		81	14	6		60	8	10		59	5	7		46	4	2		26	1	1		
21	113	10	5		84	11	6		60	7	8		59	6	6		45	3	2		25	1	1		
22	114	5	6		85	7	7		60	7	8		59	5	7		45	2	3		24	1	1		
23	113	6	4		86	6	5		61	8	8		58	8	6		44	4	2		24	0	1		

F<sub>am</sub> = median value of effective antenna noise in db above ktb  
D<sub>g</sub> = ratio of upper decile to median in db  
D<sub>g</sub> = ratio of median to lower decile in db  
V<sub>dm</sub> = median deviation of average voltage in db below mean power  
L<sub>dm</sub> = median deviation of average logarithm in db below mean power





# MONTH-HOUR VALUES OF RADIO NOISE

Station Kekaha(Kauai), T. H. Lat. 22.0 N Long. 159.7 W

Month September 19 59

Hour (LST)	Frequency (Mc)											
	.013				.051				.160			
	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>
00	154	2	2	9.5	150	129	6	4	100	160	103	9
01	156	0	3	9.5	155	131	4	4	110	165	106	6
02	154	2	1	10.5	170	131	3	4	110	180	107	6
03	156	2	3	11.5	175	133	4	6	120	195	109	4
04	156	2	4	12.0	180	133	4	4	125	200	109	4
05	156	3	4	12.5	195	133	4	4	120	195	107	5
06	156	4	2	13.0	200	129	4	2	130	210	97	7
07	154	4	2	12.5	195	123	4	4	125	205	81	15
08	152	4	2	12.0	180	115	6	4	140	200	81	16
09	152	3	4	11.0	170	115	6	11	165	220	81	16
10	152	4	3	11.0	170	115	8	9	150	225	81	11
11	152	2	4	11.0	170	113	9	8	135	195	75	14
12	152	3	4	9.5	150	113	8	7	140	210	77	13
13	152	2	2	11.0	170	113	6	6	155	205	77	15
14	152	3	4	11.5	175	115	6	8	170	230	79	12
15	150	4	2	11.0	165	113	6	4	165	210	79	14
16	152	2	4	11.0	165	113	6	8	150	200	77	12
17	150	4	3	11.0	170	110	8	5	115	155	74	19
18	150	4	2	12.0	180	113	6	2	90	140	87	9
19	150	2	2	9.5	160	119	7	4	75	130	94	9
20	152	2	2	9.0	150	121	9	2	80	130	98	8
21	153	4	3	9.0	150	124	8	3	80	130	101	10
22	154	3	2	8.5	140	126	6	3	90	140	101	11
23	155	3	3	9.5	150	127	8	3	110	170	103	9

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>g</sub> = ratio of upper decile to median in db

V<sub>dm</sub> = ratio of median to lower decile in db

L<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>am</sub> = median deviation of average logarithm in db below mean power

152044-102-16

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# MONTH-HOUR VALUES OF RADIO NOISE

Station Kekaha (Kauai), T. H. Lat. 22. 0 N Long. 159. 7 W Month October 19 59

Hour (LST)	Frequency (Mc)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

U.S. GOVERNMENT PRINTING OFFICE: 1955

RN-13



# MONTH-HOUR VALUES OF RADIO NOISE

Station Kekaha (Kauai), T. H. Lat. 22.0 N Long. 159.7 W

Month November 19 59

Hour (LST)	Frequency (Mc)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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	F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>			V <sub>dm</sub>			L <sub>dm</sub>			F <sub>m</sub>			D <sub>g</sub>		

F<sub>m</sub> = median value of effective antenna noise in db above ktb

D<sub>g</sub> = ratio of upper decile to median in db

D<sub>g</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

CGO:KAW:455-45

RN-13



# MONTH-HOUR VALUES OF RADIO NOISE

Station Ohira, Japan

Lat. 35. 6 N Long. 140. 5 E

Month September 19 59

Hour (LST)	Frequency (Mc)																																									
	.013						.051						.160						.545						2. 5						10						20					
	F <sub>m</sub>		D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>							
	F <sub>m</sub>	D <sub>m</sub>																																		F <sub>m</sub>	D <sub>m</sub>	F <sub>m</sub>	D <sub>m</sub>	F <sub>m</sub>	D <sub>m</sub>	F <sub>m</sub>
00	158		11.0	17.5		132	6	4	11.0	16.5		111	7	9	8.5	14.0		91	7	10	8.0	15.5	5.8	9	5	6.5	11.0	5.7	6	6	6.0	10.0	4.7	7	5	5.0	9.0	2.4	5	2	2.5	4.5
01	154					134	3	7	9.5	16.5		111	6	9	8.5	15.0		89	11	10	7.5	14.0	5.8	8	9	5.5	10.5	5.5	8	5	6.0	11.0	4.2	4	2	4.5	8.5	2.4	2	2	1.5	3.0
02	158		11.0	16.5	13.2	7	3		11.0	17.5		112	8	8	8.5	15.0		89	10	8	8.5	12.5	5.8	11	5	8.0	14.0	5.5	8	3	6.0	10.5	4.4	4	4	4.5	9.0	2.4	2	2	1.5	3.0
03	156		12.0	18.5	13.2	9	4		10.0	16.5		111	7	9	7.5	15.0		88	13	7	7.5	15.5	5.8	12	7	7.5	14.0	5.7	5	5	5.5	10.0	4.2	6	3	4.0	7.5	2.3	2	1	1.5	3.5
04	156		12.5	19.0	13.3	8	5		10.5	18.0		111	9	7	8.0	15.0		85	10	6	8.0	15.5	5.8	11	7	7.0	13.0	5.6	7	4	5.5	10.5	4.1	5	3	6.0	9.0	2.2	2	0	1.0	3.0
05	154		11.0	18.0	12.8	13	4		11.5	19.0		101	23	11	9.5	16.5		69	35	4	8.0	18.5	5.6	11	8	7.5	14.0	5.9	5	5	10		4.4	6	4	5.0	8.5	2.4	4	2	2.5	4.0
06	154		11.5	18.5	12.3	14	5		11.0	18.5		88	28	15	9.0	14.0		66	26	3	6.0	12.0																				
07	154		10.5	17.0	11.8	16	4		11.5	20.0		87	28	10	7.0	12.0		69	26	4	6.5	13.0	3.8	14	4	8.0	11.5	3.5	14	8	7.0	11.0	3.6	8	6	5.5	9.5	2.6	4	4	5.5	8.5
08	155		12.5	19.0	11.9	16	5		12.5	21.0		89	30	14	7.5	21.0		67	32	2	1.0	5.0	3.2	25	2	5.0	8.0	3.3	10	8	4.5	8.0	3.2	10	8	3.5	7.0	2.6	6	4	4.0	7.5
09	154				12.2				7.0	11.0		91						70			5.0	9.0	3.2	24	4																	
10	153				12.2	6	11		14.5	23.0		87	18	9	7.0	18.0		69	27	4																						
11	154		13.5	21.0	12.2	9	6		13.5	23.0		89	13	10	4.5	7.5		67	30	2	4.5	8.5	3.2	18	4	6.0	6.0	2.9	11	4	4.5	7.0	2.8	10	8	5.0	7.5	2.4	6	4	4.0	7.0
12	154		13.5	21.5	12.2	13	8		13.0	22.0		87	28	8	7.0	13.0		72	22	3	4.5	7.5	3.2	16	4	6.5	9.0	2.7	10	4	6.0	9.0	2.6	12	6	7.5	12.0	2.4	4	4	2.5	5.0
13	155		11.5	19.0	12.2	12	6		14.0	21.5		86	26	7	7.0	10.0		69	19	2	2.0	8.5	3.2	14	4	5.0	8.5	2.7	11	4												
14	156				12.2	13	4		12.5	20.5		85	29	6	8.0	11.5		71	16	4	4.5	8.0	3.0	22	2																	
15	157		8.5	15.0	12.2	8	4		8.0	14.5		83	18	6	9.5	14.0		68	6	4	8.0	13.0	3.2	8	4	4.5	7.5	3.1	16	6	6.5	9.5										
16	158				12.2	6	6		9.5	16.0		85	13	10	4.5	7.0		69	4	4	5.5	11.0	3.6	8	2	5.0	8.0	3.9	10	11	5.0	10.0	4.2	13	5	3.5	6.5	3.0	7	3	3.0	6.0
17	158		5.0	8.0	12.3	8	8		9.5	16.5		89	16	12	7.0	14.0		72	7	4	5.0	9.5	4.2	4	6	4.5	8.0	5.1	9	10	3.0	5.0	4.6	12	5	4.5	8.0	3.0	6	6	4.0	7.5
18	154		7.5	13.0	12.3	14	6		9.5	16.5		101	10	7	7.0	18.0		85	8	7	7.5	12.0	4.7	13	5	5.5	11.0	6.3	6	9	4.5	9.0	4.8	12	4	5.0	8.5	3.0	6	4	3.5	6.5
19	156		8.5	15.0	12.8	7	4		7.0	17.5		105	9	5	8.0	15.5		89	6	4	4.5	9.0	5.6	10	5	6.5	12.0	7.1	5	6												
20	158				13.0	6	5		9.5	16.0		109	5	9	7.5	14.0		91	6	4	5.5	10.0	6.0	5	6	6.5	11.5	7.1	4	4	10.0	15.0	5.0	14	4	3.0	6.5	2.6	4	2	2.0	4.0
21	158		11.5	18.0	13.2	6	4		9.5	15.0		109	4	9	7.5	13.0		91	8	3	8.5	15.0	6.0	6	6	5.0	10.0	7.3	6	8												
22	158				13.2	5	4		11.0	19.0		109	6	5	8.5	15.0		94	5	7	9.5	9.5	6.0	8	8	6.0	11.0	7.3	7	8	2.0	5.0	5.0	8	4	3.5	7.5	2.4	4	0	2.0	4.0
23	158		11.5	18.0	13.4	5	7		12.0	16.5		110	7	9	8.0	15.5		95	5	8	6.0	10.5	5.9	7	7	7.5	11.0	6.3	15	9												

F<sub>m</sub> = median value of effective antenna noise in db above k1b

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

UDC62.4.02.01

RN-13

# MONTH-HOUR VALUES OF RADIO NOISE

Station Ohira, Japan

Lat. 35.6°N Long. 140.5°E

Month October

19 59

Hour (LST)	Frequency (Mc)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	.013				.051				.160				.545				2.5				5				10				20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
00	152	4	2	90	140	132	8	3	95	170	113	6	9	70	130	91	7	9	90	160	57	7	8	50	80	53	8	4	35	65	23	8	0	15	30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
01	152	2	2	90	145	132	6	4	115	180	111	6	6	85	145	89	6	10	85	150	54	7	5	65	100	51	9	9	40	80	23	3	0	10	30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
02	152	2	2	95	155	132	5	5	105	175	111	6	6	95	170	89	6	8	85	150	53	7	5	55	100	47	11	6	75	120	23	2	0	10	25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
03	154	2	4	100	165	130	7	4	120	205	109	8	4	90	165	89	6	10	105	165	56	12	7	65	130	53	9	5	55	105	41	15	4	50	75	23	1	0	10	25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
04	152	6	2	100	170	132	6	6	115	185	109	7	7	110	200	87	7	11	70	120	53	13	7	65	145	52	10	5	65	130	38	12	5	40	60	23	2	10	25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
05	154	4	4	110	170	128	7	5	100	175	103	9	12	115	190	73	15	4	65	115	55	11	10	60	125	67	11	13	70	120	41	9	4	40	70	23	2	1	15	35																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
06	152	4	4	110	170	122	8	6	130	200	93	18	19	65	105	71	16	6	60	105	44	10	6	85	120	48	7	6	45	75	41	5	4	45	80	25	6	2	40	65																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
07	150	6	2	105	175	120	11	12	115	165	85	26	9	*	*	71	13	6	60	110	38	10	2	75	130	39	6	6	45	65	39	6	6	80	125	25	8	2	75	35																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
08	148	8	2	125	185	118	12	12	120	200	91	20	15	*	*	69	18	6	20	45	34	9	4	40	60	33	7	4	60	90	35	10	8	80	115	25	10	4	20	35																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
09	150			140	215	119					89					93				30	14	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			</

F<sub>m</sub> = median value of effective antenna noise in db above k1b

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

LCR-100-10

RN-13





# MONTH-HOUR VALUES OF RADIO NOISE

Station Pretoria, S. Africa Lat. 25.8 S Long. 28.3 E

Month September 19 59

Hour (LST)	Frequency (Mc)											
	.051				.113				.246			
	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> L <sub>dm</sub>
00	126 6 6				86 5 7				61 4 6			
01	126 6 8				85 8 6				59 5 6			
02	127 6 9				86 9 7				58 8 5			
03	126 8 8				85 13 10				61 2 10			
04	124 12 4				82 16 11				59 8 8			
05	123 12 5				73 15 10				53 14 4			
06	118 12 4				57 4 2				45 8 4			
07	117 9 9				57 4 2				43 2 2			
08	114 12 11				59 10 2				43 2 2			
09	108				59 7 3				41			
10	113 13 9				57 6 0				43 2 4			
11	116 9 10				59 6 2				41 6 0			
12	118 6 7				57 6 0				43 4 2			
13	120 4 5				59 16 2				41 4 2			
14	122 5 6				57 22 2				43 5 3			
15	123 7 5				57 26 2				43 4 3			
16	122 8 4				59 28 4				42 7 3			
17	122 4 6				59 16 4				43 6 2			
18	124 6 8				79 10 10				40 13 5			
19	126 6 4				85 6 6				59 8 6			
20	128 6 4				85 6 4				59 8 4			
21	126 6 4				87 6 6				59 9 5			
22	127 5 3				87 6 6				61 6 6			
23	126 6 6				85 8 8				59 9 5			

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

USCIB-MET-N

RN-13



# MONTH-HOUR VALUES OF RADIO NOISE

Station Pretoria, S. Africa

Lat. 25.8 S Long. 28.3 E

Month October

19 59

Hour (LST)	Frequency (Mc)											
	.051				.113				.246			
	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> L <sub>dm</sub>
00	134 9 8				105 11 7				94 7 7			
01	132 12 5				103 13 8				91 9 9			
02	132 7 6				102 9 8				90 9 8			
03	132 8 7				100 11 8				90 6 2			
04	130 6 7				94 10 10				84 8 11			
05	126 8 6				83 14 17				58 21 3			
06	124 8 9				70 18 8				56 16 2			
07	118 9 7				69 16 7				56 25 0			
08	118 6 10				75 33 13				58			
09	118				70 15 8				58 12 2			
10	120 10 10				66 28 4				58 22 2			
11	122 10 12				74 27 12				58 24 2			
12	124 10 8				74 34 12				60 31 4			
13	128 12 8				96 20 30				78 24 22			
14	132 12 8				104 11 35				87 16 29			
15	135 11 10				106 10 31				90 14 32			
16	140 6 15				111 5 44				94 10 36			
17	139 8 13				111 9 41				90 16 32			
18	140 9 16				112 8 23				96 11 16			
19	142 7 14				110 9 14				96 10 10			
20	139 9 9				110 8 17				97 9 9			
21	138 12 9				110 8 13				97 9 7			
22	136 11 8				110 8 12				98 8 8			
23	138 10 11				110 10 11				96 6 10			

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

# MONTH-HOUR VALUES OF RADIO NOISE

Station Pretoria, S. Africa Lat. 25.8 S Long. 28.3 E

Month November 19 59

Hour (EST)	Frequency (Mc)											
	.051				.113				.246			
	F <sub>am</sub>	D <sub>u</sub>	D <sub>f</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>f</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>f</sub>	L <sub>dm</sub>
00	134	8	8		119	10	10		106	8	13	
01	134	10	10		121	8	12		104	11	14	
02	134	10	11		119	11	13		102	16	13	
03	134	9	10		119	10	13		102	12	12	
04	132	7	9		117	10	14		99	13	11	
05	125	10	9		105	17	8		74	34	10	
06	122	9	9		103	18	27		70	28	13	
07	118	10	8		101	18	25		70	28	12	
08	118				96	21	24		72	18	14	
09	120				97				72			
10	122	6	11		103	14	16		76	25	18	
11	126	13	7		112	11	20		92	19	32	
12	130	12	8		116	11	19		100	18	34	
13	135	10	10		121	8	24		106	14	36	
14	139	8	13		125	8	27		111	8	29	
15	143	7	18		129	6	26		112	6	42	
16	142	5	17		127	7	23		112	6	42	
17	140	6	16		127	6	25		114	5	44	
18	140	8	14		127	6	25		112	8	32	
19	142	6	15		129	4	21		109	3	28	
20	140	7	10		127	4	17		110	8	22	
21	138	6	12		125	8	16		108	10	16	
22	134	9	7		123	5	14		107			
23	134	9	8		119	9	10		106	7	14	

F<sub>am</sub> = median value of effective antenna noise in db above ktb  
D<sub>u</sub> = ratio of upper decile to median in db  
D<sub>f</sub> = ratio of median to lower decile in db  
V<sub>am</sub> = median deviation of average voltage in db below mean power  
L<sub>dm</sub> = median deviation of average logarithm in db below mean power



# MONTH-HOUR VALUES OF RADIO NOISE

Station Rabat, Morocco Lat. 33.9 N Long. 6.8 W Month October 19 59

Hour (LST)	Frequency (Mc)											
	.051				.246				.545			
	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>
00	130	2	2		103	4	6		89	6	4	
01	130	4	2		101	6	4		89	4	4	
02	132	2	4		101	6	4		87	6	6	
03	130	4	4		99	8	4		87	8	8	
04	130	4	4		99	6	8		89	2	8	
05	130	4	4		92	12	4		81	10	4	
06	128	6	2		85	12	6		75	4	8	
07	122	6	4		80	11	5		71	11	13	
08	117	9	6		79	8	2		75	6	22	
09	113				79	16	4		75	8	16	
10	116	6	8		79	12	2		69	13	10	
11	114	7	6		79	8	4		75	6	18	
12	118	8	8		79	14	4		77	6	20	
13	120	10	4		77	23	4		74	6	17	
14	121	11	5		79	21	4		75	8	15	
15	122	9	4		79	18	4		67	15	14	
16	122	9	4		81	13	6		69	18	10	
17	122	8	4		86	9	7		77	8	6	
18	122	8	4		94	5	7		83	8	4	
19	128	2	4		95	8	4		87	6	2	
20	128	4	2		97	6	4		89	6	4	
21	128	4	2		99	6	4		91	4	4	
22	130	4	4		101	6	6		89	6	2	
23	130	2	2		101	4	4		89	6	4	

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>g</sub> = ratio of upper decile to median in db

D<sub>g</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

# MONTH-HOUR VALUES OF RADIO NOISE

Station Rabat, Morocco

Lat. 33.9 N Long. 6.8 W

Month November 19 59

Hour (LST)	Frequency (Mc)											
	.051				.246				.545			
	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>
00	131	5	6		103	10	10		84	13	2	
01	131	4	6		103	8	8		88	5	8	
02	131	4	4		103	8	8		86	12	10	
03	131	6	6		103	8	11		86	9	6	
04	131	5	4		101	7	12		84	11	8	
05	131	4	8		99	7	6		80	16	6	
06	129	6	6		95	11	12		83	5	18	
07	123	7	6		91	10	14		81	9	23	
08	119	6	9		88	12	11		76	13	21	
09	115	14	9		86	13	7		80	8	20	
10	117				84	10	5		72	13	16	
11	117	9	10		83	18	8		82	6	18	
12	117	13	9		83	17	6		78	12	24	
13	117	11	4		91	10	16		84	6	25	
14	117	10	6		89	12	16		78	12	18	
15	117	10	8		83	14	12		74	14	18	
16	117	10	6		91	8	14		84	4	22	
17	117	15	8		93	10	11		86	5	4	
18	123	9	8		95	12	10		86	8	2	
19	125	10	6		97	12	12		88	6	2	
20	127	6	8		99	12	8		90	10	4	
21	127	10	4		99	14	6		90	8	2	
22	129	6	4		103	8	8		90	8	6	
23	129	5	4		101	8	6		88	7	5	

F<sub>m</sub> = median value of effective antenna noise in db above ktb  
D<sub>u</sub> = ratio of upper decile to median in db  
D<sub>l</sub> = ratio of median to lower decile in db  
V<sub>dm</sub> = median deviation of average voltage in db below mean power  
L<sub>dm</sub> = median deviation of average logarithm in db below mean power



# MONTH-HOUR VALUES OF RADIO NOISE

Station São José, Brazil

Lat. 23.3 S Long. 45.8 W

Month September 19 59

Hour (LST)	Frequency (Mc)																																							
	.051					.113					.246					.545					2.5					5					10					20				
	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>
	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>
00	132	7	8.0	12.5	120	7	12.70	12.5	103	8	7	6.5	11.0	89	10	6	5.5	10.0	65	7	11	5.0	10.0	59	8	8	5.0	10.0	48	5	8	6.0	11.0	29	6	4	3.0	6.0		
01	134	5	9	8.0	13.5	122	8	12.75	115	107	5	11	7.0	91	8	8	6.0	11.5	63	8	9	5.0	11.5	58	6	11	5.0	10.0	48	5	8	5.5	10.0	27	8	4	3.5	7.0		
02	133	5	9	7.5	13.5	121	8	12.60	110	105	11	9	6.5	91	8	8	5.5	11.0	66	6	13	5.5	11.5	57	8	9	5.0	10.0	46	8	5	5.0	9.5	25	8	4	2.0	6.0		
03	133	6	9	7.0	12.5	118	11	10	7.5	130	101	13	7	6.0	89	7	6	5.5	10.0	65	7	14	6.5	11.5	59	8	10	5.0	11.0	44	7	4	5.5	9.5	23	10	2	1.5	4.5	
04	132	7	8	7.5	12.5	120	8	12.55	100	103	10	11	7.0	89	7	9	6.5	11.5	65	7	15	6.5	12.5	59	7	10	6.5	11.5	42	11	4	4.5	8.5	23	14	2	1.5	3.0		
05	132	7	8	7.0	13.5	120	11	12	7.0	12.5	97	13	11	8.0	81	10	9	7.0	11.5	64	7	14	6.0	11.0	59	7	10	5.5	10.0	42	10	6	5.0	8.5	23	7	2	1.5	3.0	
06	125	9	9	8.0	13.0	106	15	12	4.5	9.5	99	9	11	8.5	80	4	7	6.0	12.5	54	13	13	6.5	11.5	53	8	7	4.5	8.0	44	8	5	5.0	9.0	27	34	4	3.0	5.5	
07	124	9	14	10.0	16.0	104	17	10	6.0	12.0	80	19	15	7.5	75	11	3	4.0	10.0	44	11	12	6.0	10.0	45	8	8	4.0	7.5	44	8	8	4.5	8.0	31	22	6	3.0	5.5	
08	120	13	14	10.5	17.5	105	15	11	9.5	14.5	83	14	4	79	4	5	5.0	9.0	40	12	8	10.0	12.5	39	12	2	8.5	14.0	38	8	7	7.0	10.5	29	20	8	5.0	9.0		
09	122	14	16	12.0	22.0	103	18	8	4.0	10.0	85	10	6	79	5	5	4.5	10.0	40	10	9	8.5	12.5	35	11	4	9.5	12.5	36	9	6	7.5	7.5	25	14	6	5.0	7.5		
10	124	8	16	11.5	17.5	106	16	10	6.5	11.5	85	12	8	79	8	4	7.5	12.5	38	15	6	8.5	9.0	35	10	4	5.0	7.5	34	10	4	5.0	8.5	26	23	7	5.0	7.5		
11	124	8	14	9.0	16.0	104	13	8	5.5	12.0	85	14	11	75	7	8	5.0	9.0	38	8	8	4.0	9.0	35	4	6	3.5	7.5	32	9	6	5.0	6.5	29	19	10	4.5	7.5		
12	124	9	19	10.0	16.0	103	15	10	6.5	11.0	79	17	5	75	11	3	6.5	12.5	36	6	6	4.0	6.5	33	4	6	6.0	11.5	33	5	5	4.0	8.5	23	30	2	2.5	5.0		
13	124	6	10	9.5	15.0	102	14	8	6.0	11.0	83	13	9	75	12	9	6	5.0	9.0	36	7	6	5.5	8.0	31	9	5	6.5	10.0	34	8	10	6.0	7.5	25	16	2	3.0	5.5	
14	126	7	8	7.5	13.0	102	16	7	6.5	10.5	83	16	8	90	13.5	79	5	10.0	15.0	39	8	8	10.5	16.0	33	9	6	5.0	9.0	34	9	6	4.0	7.5	29	29	5	3.0	5.5	
15	128	7	4	6.5	12.5	106	17	10	6.0	11.5	85	20	11	70	80	12	5	8.5	18.5	39	11	7	4.5	7.0	37	10	9	7.5	11.0	38	9	8	4.5	7.5	30	35	3	3.0	5.5	
16	127	11	9	6.0	10.0	108	16	13	4.0	8.0	87	23	12	80	730	9	7	7.0	130	40	16	7	8.0	10.0	41	9	9	4.0	7.5	42	6	7	3.5	7.5	31	12	4	2.5	4.5	
17	127	12	6	7.5	12.5	107	18	12	6.0	10.0	85	20	11	80	12.5	79	15	7	8.0	13.5	40	19	7	7.0	9.0	49	7	10	5.0	10.0	46	4	6	3.5	7.5	31	10	2	3.5	6.0
18	126	13	5	6.5	11.5	108	19	9	4.0	7.5	93	17	9	80	10.0	85	13	7	5.0	9.5	57	12	13	3.5	8.0	61	5	12	4.5	7.5	49	5	7	4.0	7.5	31	8	4	3.5	7.5
19	130	10	5	7.5	13.0	115	13	12	6.0	10.5	97	13	8	5.5	10.5	87	11	3	4.0	8.5	64	10	9	5.0	10.0	61	6	6	3.0	6.5	50	7	4	4.0	8.0	31	6	6	3.0	6.5
20	132	8	4	6.0	10.0	117	11	9	5.5	10.0	99	14	8	5.0	11.0	89	7	6	5.0	7.5	66	7	8	3.5	7.5	63	5	6	5.5	7.5	50	4	4	4.0	7.5	31	4	5	3.5	6.5
21	132	8	6	6.5	11.0	116	13	8	5.0	9.5	99	13	10	6.0	12.5	89	9	4	5.0	8.5	65	7	7	5.0	9.0	61	8	6	4.5	8.0	50	4	6	4.5	8.0	31	4	4	4.0	7.5
22	130	10	6	7.0	11.0	116	13	7	7.5	12.0	101	12	8	6.0	11.0	89	9	6	5.0	9.0	66	6	10	5.0	9.5	61	7	7	5.0	9.0	48	1	4	4.5	9.0	31	4	5	4.0	8.0
23	132	8	7	7.0	12.5	119	12	10	7.0	12.5	105	7	10	6.5	12.5	91	7	6	4.0	7.5	63	9	7	6.0	12.5	61	6	6	5.0	9.0	46	8	4	5.5	10.0	31	5	6	3.5	7.5

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>g</sub> = ratio of upper decile to median in db

V<sub>dm</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

USCAR-REC-PL

RN-13

# MONTH-HOUR VALUES OF RADIO NOISE

Station São José, Brazil

Lat. 23.3 S Long. 45.8 W

Month October 1959

Frequency (Mc)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Hour (LST)	.051						.113						.246						.545						2.5						5						10						20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	Fam			Du			Df			Vdm			Ldm			Fam			Du			Df			Vdm			Ldm			Fam			Du			Df			Vdm			Ldm			Fam			Du			Df			Vdm			Ldm			Fam			Du			Df			Vdm			Ldm																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam	Du	Ldm	Fam

Fam = median value of effective antenna noise in db above k1b

Du = ratio of upper decile to median in db

Df = ratio of median to lower decile in db

Vdm = median deviation of average voltage in db below mean power

Ldm = median deviation of average logarithm in db below mean power





# MONTH-HOUR VALUES OF RADIO NOISE

Station Singapore, Malaya

Lat. 1.3 N Long. 103.8 E

Month September 19 59

Hour (LST)	Frequency (Mc)											
	.013				.051				.160			
	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	L <sub>dm</sub>	F <sub>m</sub>	D <sub>u</sub>	D <sub>l</sub>	L <sub>dm</sub>
00	160 5	2			142 5	3			121 6	3		
01	160 5	2			142 4	4			121 4	4		
02	160 4	2			142 4	4			121 4	7		
03	162 4	4			142 5	4			121 7	6		
04	162 4	3			142 4	4			121 4	6		
05	162 4	4			142 4	4			119 5	8		
06	160 5	2			138 6	7			114 9	16		
07	160 4	4			136 8	10			110 15	13		
08	160 6	4			135 10	8			107 8	8		
09	158 8	3			132 10	5			103 17	6		
10	160 6	6			134 7	7			103 18	10		
11	158 6	5			134 8	6			107 20	12		
12	160 4	4			135 9	5			113 10	13		
13	162 4	3			138 8	5			119 8	14		
14	164 4	6			142 6	8			119 10	10		
15	164 4	4			144 4	8			121 4	11		
16	164 3	2			142 6	6			119 5	9		
17	162 4	2			140 6	6			115 7	5		
18	162 3	5			142 4	5			121 4	5		
19	162 2	4			142 3	4			121 4	3		
20	160 4	2			142 4	4			121 5	4		
21	160 4	2			142 5	4			121 7	4		
22	161 3	3			142 4	4			122 5	4		
23	162 2	4			142 4	3			121 6	4		

F<sub>m</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power



# MONTH-HOUR VALUES OF RADIO NOISE

Station Singapore, Malaysia

Lat. 1.3 N

Long. 103.8 E

Month October

19 59

Hour (LST)	Frequency (Mc)											
	.013				.051				.160			
	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>g</sub>	V <sub>dm</sub>	L <sub>dm</sub>
00	162	4	4		141	6	4		119	6	6	
01	163				141	4	2		119	8	8	
02	162	5	3		141	4	6		118	9	5	
03	162				141	6	4		121	4	8	
04	162	4	4		140	7	5		119	6	6	
05	162				139	6	6		115	8	10	
06	160	5	7		135	6	8		107	18	12	
07	158				129	14	5		103	21	14	
08	159				129	17	4		103	22	6	
09	158				129	16	2		105	25	12	
10	159				131	16	6		105	25	11	
11	158				134	18	9		113	22	14	
12	162	8	8		137	16	9		115	18	16	
13	163				140	11	11		120	13	15	
14	168	3	9		143	10	8		123	8	12	
15	166				142	7	7		122	7	11	
16	166	2	5		143	4	6		119	8	9	
17	164				142	3	7		119	2	8	
18	164	2	6		143	2	4		121	4	4	
19	162				141	4	2		121	4	4	
20	163	4	5		143	4	6		121	4	6	
21	163				143	4	6		119	6	6	
22	163	3	4		141	4	4		119	6	4	
23	162				141	4	4		119	4	4	

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>g</sub> = ratio of upper decile to median in db

V<sub>dm</sub> = ratio of median to lower decile in db

L<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

# MONTH-HOUR VALUES OF RADIO NOISE

Station Singapore, Malaya

Lat. 1.3 N Long. 103.8 E

Month November 19 59

Hour (LST)	Frequency (Mc)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	.013								.051								.160								.545								2.5								5								10								20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>g</sub> = ratio of upper decile to median in db

D<sub>g</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

UCON-44-14

RN-13



# MONTH-HOUR VALUES OF RADIO NOISE

Station Thule, Greenland

Lat. 76.6 N Long. 68.7 W

Month September 19 59

Hour (LST)	Frequency (Mc)											
	.051				.113				.246			
	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> <sup>*</sup>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> <sup>*</sup>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> <sup>*</sup>
00	121	3	3	3.5	103	0	2	5.0	84			110
01	120	4	0	2.5	103	0	2	11.0	83			5.0
02	120	4	2	3.0	103	2	4	8.5	83			11.0
03	120	4	0	4.5	103	2	4	7.0	79			4.5
04	120	4	0		101	4	2	11.0	80			11.0
05	121	3	3		101	4	2	17.5	79			18.0
06	121	3	3		103	4	4	11.0	81			13.0
07	120				103				80			
08	120				103				79			
09	121				103				79			
10	120	4	2		101	2	2		79			
11	120	4	2		101				79			
12	120				101				80			
13	120				103				80			
14	120				101				79			
15	120	4	2	7.0	101	6	2	5.5	70			
16	120	3	2	4.0	103	4	4		81			
17	120	0	2	4.0	102			4.5	4.5			
18	120	4	2	4.0	101			7.0	80			
19	120	2	2	5.5	103	2	4	7.0	80			
20	120	2	0	2.5	103			10.5	11.5			
21	122	2	4	3.0	103	2	4	14.0	15.0			
22	122	2	2	3.0	103	2	4	8.5	11.5			
23	122			4.5	103	2	2	5.5	6.0			

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

# SEASONAL TIME-BLOCK VALUES OF RADIO NOISE

Station Balboa, Canal Zone Lat. 9.0 N Long. 79.5 W Season Fall (Sept. Oct. Nov.) 19 59

## TIME BLOCKS (LST)

	0000-0400						0400-0800						0800-1200						1200-1600						1600-2000						2000-2400					
Frequency (Mc)	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>		F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>		F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>		F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>		F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>		F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	
.051	142	7	5	11.0	19.0								135	11	10	15.5	25.0			140	12	8	12.5	20.0							141	5	6	10.0	17.5	
.113	130	7	6	9.0	14.5		126	9	11	13.0	21.0		119	14	16	15.5	24.5		126	14	14	15.0	22.0		125	9	9	12.0	18.0		127	6	5	8.0	14.0	
.246	114	6	6	8.5	15.0		108	10	13	14.0	23.5		92	19	14	13.0	24.0		110	16	15	13.0	23.0		108	11	8	10.0	17.5		112	6	4	7.5	13.5	
2.5	68	5	6	6.0	11.5		62	7	9	9.0	15.0		38	23	13	9.5	16.0		47	29	12	11.0	11.5		56	10	10	8.5	14.5		66	5	6	6.0	11.0	
5	70	3	6	5.5	10.0		54	6	6	7.5	13.0		34	17	12	9.5	15.0		40	25	14	10.0	16.5		54	6	7	6.0	10.0		60	4	5	5.0	8.5	
10	43	4	4	5.0	8.5		40	5	5	5.5	9.0		31	9	9	9.5	15.5		34	13	8	9.0	14.5		44	5	4	5.5	9.0		45	3	4	5.0	8.5	
*	26			4.0	6.0		27			4.5	7.0		25			4.5	7.0		29	8	5	5.0	8.0		21	4	2	4.0	6.5		28	5	2	4.0	6.0	

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

\* September and November data only.



# SEASONAL TIME-BLOCK VALUES OF RADIO NOISE

Station Bill, Wyoming Lat. 43.2 N Long. 105.2 W Season Fall ( Sept. Oct. Nov. ) 19 59

## TIME BLOCKS (LST)

Frequency (Mc)	0000-0400					0400-0800					0800-1200					1200-1600					1600-2000					2000-2400					
	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	
.051	129	7	4			124	7	7			120					119						125					130				
.113	115	8	4			104	11	6			99					100						110					114				
.246	98	10	6			85	14	8			81					84						92					98				
.495	86	8	4			66					60					62						71					84				
2.5	60					51					31					27						45					58				
5	55					47					28					26						43					51				
10	36					33					26					27						36					37				
20	24					25					28					31						31					25				

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>ℓ</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

# SEASONAL TIME-BLOCK VALUES OF RADIO NOISE

Station Boulder, Colorado Lat. 40.1 N Long. 105.1 W Season Fall (Sept. Oct. Nov.) 19 59

## TIME BLOCKS (LST)

Frequency (Mc)	0000 - 0400						0400 - 0800						0800 - 1200						1200 - 1600						1600 - 2000						2000 - 2400					
	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>		F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>		F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>		F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>		F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>		F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	
.013	156	5	2	10.5	17.5		155	4	3	11.5	18.5		154	4	4	12.0	18.5		156	5	5	9.5	16.0		156	5	5	10.5	17.5		157	5	4	10.5	18.0	
.051	131	7	5	9.5	17.0		124	8	6	11.0	18.5		118	8	8	12.0	20.0		122	8	9	9.0	16.5		127	8	7	8.5	15.5		131	8	5	8.5	15.5	
.160	107	10	6	8.5	15.5		90	15	11	9.0	15.5		82	18	9	8.0	13.5		88	15	10	7.5	13.5		101	11	11	7.5	14.0		107	10	7	7.5	14.5	
.495	85	11	6	7.5	13.5		68	12	5	4.5	8.0		63	10	5	4.0	7.0		66	12	7	3.0	6.0		76	13	9	4.5	9.5		86	10	6	6.0	11.0	
2.5	60	8	5	4.5	8.5		52	6	5	4.0	7.5		47	3	7	2.0	4.0		62	5	9	1.5	3.5		54	8	5	3.0	6.0		54	8	5	3.5	7.5	
5	56	6	5	4.0	8.0		48	6	5	4.0	7.5		39	3	7	2.0	4.0		38	5	10	2.0	4.0		50	7	4	3.0	6.0		55	6	4	4.0	7.5	
10	45	5	5	4.0	7.0		41	6	4	3.5	6.0		32	7	5	2.5	5.0		35	7	8	3.0	6.0		47	4	4	3.5	6.5		47	3	5	3.5	7.0	
20	26	2	2	2.0	3.5		28	2	2	2.0	3.5		30	3	3	2.0	4.0		33	4	3	2.0	4.5		32	4	3	2.0	4.5		26	2	3	1.5	3.0	

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power



# SEASONAL TIME-BLOCK VALUES OF RADIO NOISE

Station Byrd Station, Ant. Lat. 80.0 S Long. 120.0 W Season Spring ( Sept. \*\*\* Nov. ) 19 59

## TIME BLOCKS (LST)

	0000-0400					0400-0800					0800-1200					1200-1600					1600-2000					2000-2400					
Frequency (Mc)	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	
.051	103	2	3			102	2	5			101	2	2				102	2	2			103	3	2							
.113	75	7	4			76	6	5			74	6	4				76	5	5			75	6	4							
.246	62	3	6			62	2	6			64	2	6				63	3	5			64	3	5							
.545	55	6	6			56	5	7			56	5	8				56	6	4			56	4	5							
2.5	21	3	2			21	3	2			20	4	2				22	3	3			22	5	2							
5	23	8	8			18	9	2			17	3	2				24	8	6			28	7	9							
10	21	8	6			18	6	8			15	4	4				24	5	7			25	7	8							
20	19	2	1			18	2	2			18	1	2				20	2	2			20	0	2							

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

\*\*\* No October data.

# SEASONAL TIME-BLOCK VALUES OF RADIO NOISE

Station Cook, Australia Lat. 30.6 S Long. 130.4 E Season Spring ( Sept. Oct. Nov. ) 19 59

## TIME BLOCKS (LST)

Frequency (Mc)	0000-0400					0400-0800					0800-1200					1200-1600					1600-2000					2000-2400				
	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>
.013	157	4	3	7.5	12.5	155	3	4	9.5	15.5	152	6	3	11.5	18.5	155	5	3	10.5	17.5	156	6	3	8.5	15.0	156	4	3	8.0	13.5
.051	130	6	4	8.5	14.5	123	8	4	9.0	15.0	116	10	5	12.5	21.0	122	13	6	9.5	16.5	124	13	6	8.0	14.5	130	5	5	8.5	15.5
.160	105	8	6	7.5	14.5	88	17	11	9.5	17.0	76	28	14	12.0	20.5	86	25	14	9.5	17.0	97	18	12	8.5	16.5	105	8	7	7.5	14.5
.545	84	9	7	7.5	14.5	60	18	7	7.0	10.5	48	20	5	4.5	8.0	51	26	6	8.5	9.0	76	23	9	5.5	10.5	86	9	7	6.5	13.0
2.5	58	8	7	6.0	10.5	44	11	7	6.5	10.5	24	15	4	4.5	6.5	23	19	4	4.5	7.0	42	18	12	6.0	9.5	60	9	8	6.0	11.5
5	54	6	4	5.0	9.0	46	7	5	5.0	8.5	28	11	7	3.5	5.0	28	14	8	4.0	7.5	45	11	6	6.0	10.5	57	5	6	5.0	9.0
10	43	4	3	4.0	7.5	38	4	3	4.0	7.0	24	10	5	5.0	6.5	28	10	7	4.5	7.5	43	6	4	4.5	8.0	45	4	4	4.5	7.5
20	23	3	3	3.0	5.0	22	3	3	3.0	5.0	20	4	2	3.0	4.5	23	5	3	4.0	6.5	26	6	4	3.5	6.0	25	4	4	3.0	5.0

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power



# SEASONAL TIME-BLOCK VALUES OF RADIO NOISE

Station Enköping, Sweden Lat. 59.5 N Long. 17.3 E Season Fall ( Sept. Oct. Nov. ) 19 59

TIME BLOCKS (LST)

Frequency (Mc)	0000-0400					0400-0800					0800-1200					1200-1600					1600-2000					2000-2400				
	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>
.051	128	4	6	8.0	12.5	114	4	6	9.5	14.5	105	8	7	11.5	17.5	106	8	7	10.0	15.0	112	6	6	8.5	13.0	117	6	5	8.0	12.5
** .246	79	5	6	6.5	11.5	84	7	17	7.5	12.0																				
.545	71	6	6	5.0	9.0	64	8	8	4.5	9.5	59	5	5	3.5	9.0	59	11	6	4.0	7.5	73	9	9	4.5	8.0	84	7	9	7.0	14.0
2.5	50			5.5	9.5	42			5.0	9.0	33			2.5	4.5	39	3	3	4.0	10.5	46	2	2	3.5	6.0	49			4.5	8.0
5	52			4.5	8.0	44			6.0	10.5	27			5.0	7.0	28	5	6	4.5	7.5	46	6	4	6.5	10.5	51			3.5	7.0
10	38	10	6	4.0	6.5	36	6	6	3.5	6.5	34			3.5	6.5	37	4	5	5.0	8.5	43	6	4	5.0	8.5	41	12	4	5.5	8.5
20	21	2	0	2.0	3.5	22	1	2	2.5	4.0	25	4	5	3.5	6.0	27	4	4	3.5	6.0	24	4	2	2.5	4.5	22	1	1	1.5	3.5

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>ℓ</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

\* \* Interference Kalungborg Broadcast station from 0800 through 2300.





# SEASONAL TIME-BLOCK VALUES OF RADIO NOISE

Station Kekaha (Kauai), T. H. Lat. 22.0 N Long. 159.7 W Season Fall ( Sept. Oct. Nov. ) 1959

## TIME BLOCKS (LST)

	0000-0400					0400-0800					0800-1200					1200-1600					1600-2000					2000-2400					
Frequency (Mc)	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	
.013	154	3	2	10.0	16.5	155	3	3	11.0	17.5	151	3	3	11.0	17.0	150	4	3	12.0	18.5	149	3	3	3	11.0	17.5	153	3	3	9.0	14.5
.051	131	4	4	10.5	16.5	129	4	3	11.5	18.5	111	9	7	13.0	19.0	110	8	6	14.5	19.5	110	9	7	7	10.0	15.0	123	8	4	10.0	15.5
.160	105	8	6	10.5	17.5	98	8	8	11.0	17.5	75	16	12	13.0	17.0	71	17	9	11.5	16.5	80	14	8	8	10.0	15.0	98	10	7	11.5	17.5
.495	84	8	9	11.5	19.5	74	11	10	9.5	15.5	54	13	6	5.0	7.5	53	11	5	4.5	8.5	62	14	7	5.5	8.5	78	12	8	10.5	17.0	
2.5	56	6	7	7.5	12.5	53	7	7	6.5	11.0	34	6	5	3.5	5.5	31	5	3	3.0	5.0	38	8	6	6	4.0	7.0	54	7	7	7.0	12.0
5	62	6	6	5.5	10.0	50	6	4	5.0	8.5	29	5	6	4.0	8.5	27	5	4	4.5	7.0	42	6	6	6	7.5	6.5	61	4	4	5.0	9.5
10	41	4	4	3.0	5.5	38	4	4	3.0	6.0	28	4	5	5.5	9.5	24	5	5	5.5	9.0	39	3	3	3	5.0	7.0	43	2	3	3.0	5.5
20	23	2	1	1.5	3.5	22	2	1	1.5	3.5	21	2	2	3.0	5.5	21	2	2	3.0	5.0	26	2	2	3	3.0	5.5	25	2	2	2.5	4.5

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

# SEASONAL TIME-BLOCK VALUES OF RADIO NOISE

Station Ohira, Japan Lat. 35.6 N Long. 40.5 E Season Fall ( Sept. Oct. Nov. ) 19 59

## TIME BLOCKS (LST)

Frequency (Mc)	0000 - 0400					0400 - 0800					0800 - 1200					1200 - 1600					1600 - 2000					2000 - 2400				
	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>
.013	154	3	2	9.5	15.0	153	3	4	10.5	17.0	151	4	3	14.0	20.0	152	3	3	11.0	18.0	153	5	2	9.0	14.5	156	2	3	9.5	15.0
.051	131	6	5	10.5	16.5	125	8	6	11.0	18.0	117	10	8	12.0	19.5	117	10	6	11.0	18.0	121	9	6	9.0	15.5	131	6	5	9.5	16.5
.160	110	7	7	9.0	15.0	95	17	10	10.0	15.5	86	20	11	9.5	12.5	83	20	9	7.0	10.5	94	14	8	8.0	14.0	108	7	8	8.0	14.0
.545	87	9	8	8.0	14.5	73	16	5	6.0	11.5	68	19	3	4.0	8.5	70	12	4	5.5	10.0	82	9	6	5.5	10.0	93	7	6	7.5	12.5
2.5	56	10	7	6.5	11.5	47	11	5	7.0	11.5	32	13	3	4.5	7.0	31	11	3	4.5	7.5	46	10	5	6.0	10.0	55	10	6	6.5	11.0
5	54	7	5	5.5	10.0	51	9	8	5.0	10.0	31	8	4	6.5	8.5	32	10	5	6.5	9.0	61	8	8	6.0	11.5	69	9	8	6.0	11.0
10	46	10	6	4.5	8.5	39	7	4	4.5	7.5	30	9	6	6.0	9.5	33	8	5	4.5	8.0	58	9	5	4.0	7.0	50	10	5	3.5	7.5
20	23	3	1	1.5	3.0	24	3	2	2.0	4.5	24	7	3	3.0	6.0	27	5	3	3.0	5.0	28	6	3	3.0	5.0	25	3	1	1.5	3.5

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power



# SEASONAL TIME-BLOCK VALUES OF RADIO NOISE

Station Pretoria, S. Africa Lat. 25.8 S Long. 28.3 E Season Spring ( Sept. Oct. Nov. ) 1959

## TIME BLOCKS (LST)

Frequency (Mc)	0000-0400					0400-0800					0800-1200					1200-1600					1600-2000					2000-2400					
	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	
.051	130	8	8			123	9	7			118	10	10			129	9	9				135	7	12			134	8	8		
.113	114	10	9			102	16	14			93	19	13			109	13	18				117	10	19			118	7	10		
.246	100	11	10			78	19	10			72	22	10			90	18	22				101	10	26			104	8	11		
.545	90	9	9			65	16	6			60	16	4			76	18	20				87	13	20			93	8	8		
2.5	62	6	11			48	10	7			38	6	4			46	14	5				57	11	13			64	8	8		
5	54	4	8			43	8	6			24	8	2			28	12	5				49	10	9			54	8	7		
10	42	4	5			37	6	7			24	11	4			31	10	7				49	7	5			44	6	5		
20	24	3	1			24	4	2			23	5	2			27	5	3				31	7	3			28	6	3		

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>ℓ</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

# SEASONAL TIME-BLOCK VALUES OF RADIO NOISE

Station Rabat, Morocco Lat. 33.9 N Long. 6.8 W Season Fall ( \*\*\* Oct. Nov. ) 1959

## TIME BLOCKS (LST)

Frequency (Mc)	0000-0400					0400-0800					0800-1200					1200-1600					1600-2000					2000-2400				
	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>
.051	131	4	4			128	5	5			116	8	8			119	10	6			122	9	6			128	5	4		
.246	101	7	7			93	10	8			82	12	5			82	16	8			92	10	9			100	8	6		
.545	87	9	6			80	9	11			76	9	18			76	10	19			82	8	6			90	7	4		
2.5	61	6	8			57	9	10			32	13	4			33	9	8			50	10	7			60	8	7		
5	59	4	6			49	5	6			30	11	6			28	13	6			51	10	6			57	6	6		
10	47	3	6			44	4	5			37	7	8			38	8	9			49	6	5			49	4	5		
20	32	6	4			33	5	5			42	9	10			43	9	9			44	8	8			36	8	5		

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>ℓ</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

\*\*\* No data for September.



# SEASONAL TIME-BLOCK VALUES OF RADIO NOISE

Station São José, Brazil Lat. 23.3 S Long. 45.8 W Season Spring (Sept. Oct. Nov.) 19 59

## TIME BLOCKS (LST)

Frequency (Mc)	0000-0400						0400-0800						0800-1200						1200-1600						1600-2000						2000-2400					
	F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>		F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>		F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>		F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>		F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>		F <sub>am</sub>	D <sub>u</sub>	D <sub>ℓ</sub>	V <sub>dm</sub>	L <sub>dm</sub>	
.051	133	7	7	7.0	13.0		127	8	9	8.0	14.5		122	9	10	10.0	18.0		129	9	7	8.0	14.0		132	11	7	6.5	11.5		134	8	6	6.0	11.0	
.113	114	8	9	6.0	12.0		102	11	9	5.5	11.0		96	12	7	6.0	11.0		101	16	8	6.0	9.0		106	16	11	5.5	10.0		113	10	7	5.5	10.0	
.246	103	11	11	6.0	11.5		84	12	9	6.0	12.0		80	10	9	6.0	11.0		82	16	8	7.5	11.5		92	21	9	7.0	12.0		103	8	8	5.5	11.0	
.545	88	7	6	5.5	10.0		76	10	7	5.0	10.0		77	7	7	5.0	10.0		79	13	7	8.0	14.0		84	13	8	6.0	11.5		89	7	5	4.5	8.5	
2.5	61	7	7	5.0	10.5		51	8	10	5.0	10.0		35	7	6	6.0	8.5		36	15	6	6.0	9.5		49	17	8	5.0	9.0		64	5	8	4.0	8.5	
5	55	7	6	4.5	9.5		50	7	8	4.5	9.0		32	8	4	7.0	10.0		32	11	6	6.5	10.0		52	7	8	4.0	8.0		61	5	8	4.0	8.0	
10	43	6	5	4.5	9.5		43	6	5	4.5	8.5		33	7	6	5.0	8.5		35	7	6	4.5	8.0		46	7	4	3.5	7.5		47	6	3	3.5	8.0	
20	28	7	4	2.5	6.0		25	15	3	2.0	5.0		24	17	5	3.5	7.0		27	17	4	3.0	6.0		31	7	4	3.0	6.5		30	5	4	3.0	6.5	

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>ℓ</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

# SEASONAL TIME-BLOCK VALUES OF RADIO NOISE

Station Singapore, Malaya Lat. 1.3 N Long. 103.8 E Season Fall ( Sept. Oct. Nov. ) 19 59

## TIME BLOCKS (LST)

Frequency (Mc)	0000-0400				0400-0800				0800-1200				1200-1600				1600-2000				2000-2400			
	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub> L <sub>dm</sub>
.013	162	4	3		160	5	4		158	6	5		163	6	5		163	4	4		161	4	3	
.051	141	5	4		137	7	6		132	11	6		140	10	7		142	5	5		142	4	4	
.160	120	7	5		112	11	11		105	18	11		119	11	12		119	6	6		120	5	4	
.545	93	7	5		83	16	12		78	22	16		95	12	15		94	6	7		95	5	6	
2.5	65	4	5		57	8	9		34	20	7		48	24	16		59	8	7		64	4	6	
5	60	4	3		53	6	7		33	14	7		42	19	12		56	6	4		60	6	3	
10	48	3	3		44	4	5		32	10	6		37	10	5		48	4	3		50	5	3	
20	28	3	3		26	3	2		25	7	2		29	9	3		28	4	2		30	6	3	

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power



# SEASONAL TIME-BLOCK VALUES OF RADIO NOISE

Station Thule, Greenland Lat. 76.6 N Long. 68.7 W Season Fall ( Sept. \*\*\* ) 19 59

## TIME BLOCKS (LST)

Frequency (Mc)	0000-0400					0400-0800					0800-1200					1200-1600					1600-2000					2000-2400				
	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>	F <sub>am</sub>	D <sub>u</sub>	D <sub>l</sub>	V <sub>dm</sub>	L <sub>dm</sub>
.051	120	3	1	3.5	3.5	120	3	2			120	4	2	7.0	7.0	120	4	2	4.5	5.5	122	2	2	3.0	4.0					
.113	103	1	3	8.0	11.5	102	4	3	13.0	14.5	102	2	2			102	6	2	5.5	7.0	102	3	4	6.0	7.0	103	2	3	9.5	11.0
.246	82			8.0	9.0	80			8.0	9.0	79					80			7.0	13.0	80			16.5	18.0	81			11.5	18.0
.545	68			6.0	7.0	68			6.0	7.0	67					66					67			8.0	11.0	66			6.0	7.5
2.5	76	3	8	4.5	10.0	76	4	7	5.0	10.5	74	6	6	5.0	11.0	75	8	4	4.0	10.0	75	4	6	4.5	10.0	76	4	8	4.0	10.0
5	56	5	5	5.5	11.0	58	6	7	5.0	10.5	56	7	7	4.5	10.5	57	2	6	4.5	10.0	56	6	4	5.5	11.0	58	5	5	4.0	10.0
10	28	9	5	3.5	9.0	30	7	6	5.0	10.5	28	7	5	4.5	10.5	30	6	6	4.5	9.5	30	6	6	4.5	10.0	28	11	4	4.5	8.5
20	22			7.5	14.5	22			5.0	11.5	22			4.5	10.5	21			4.0	10.0	22			4.0	10.0	22			4.5	10.0

F<sub>am</sub> = median value of effective antenna noise in db above ktb

D<sub>u</sub> = ratio of upper decile to median in db

D<sub>l</sub> = ratio of median to lower decile in db

V<sub>dm</sub> = median deviation of average voltage in db below mean power

L<sub>dm</sub> = median deviation of average logarithm in db below mean power

\*\* No data for October and November.



U.S. DEPARTMENT OF COMMERCE

Frederick H. Mueller, *Secretary*

NATIONAL BUREAU OF STANDARDS

A. V. Astin, *Director*



## THE NATIONAL BUREAU OF STANDARDS

The scope of activities of the National Bureau of Standards at its major laboratories in Washington, D.C., and Boulder, Colorado, is suggested in the following listing of the divisions and sections engaged in technical work. In general, each section carries out specialized research, development, and engineering in the field indicated by its title. A brief description of the activities, and of the resultant publications, appears on the inside of the front cover.

### WASHINGTON, D.C.

**Electricity and Electronics.** Resistance and Reactance. Electron Devices. Electrical Instruments. Magnetic Measurements. Dielectrics. Engineering Electronics. Electronic Instrumentation. Electrochemistry.

**Optics and Metrology.** Photometry and Colorimetry. Photographic Technology. Length. Engineering Metrology.

**Heat.** Temperature Physics. Thermodynamics. Cryogenic Physics. Rheology. Molecular Kinetics. Free Radicals Research.

**Atomic and Radiation Physics.** Spectroscopy. Radiometry. Mass Spectrometry. Solid State Physics. Electron Physics. Atomic Physics. Neutron Physics. Radiation Theory. Radioactivity. X-rays. High Energy Radiation. Nucleonic Instrumentation. Radiological Equipment.

**Chemistry.** Organic Coatings. Surface Chemistry. Organic Chemistry. Analytical Chemistry. Inorganic Chemistry. Electrodeposition. Molecular Structure and Properties of Gases. Physical Chemistry. Thermochemistry. Spectrochemistry. Pure Substances.

**Mechanics.** Sound. Mechanical Instruments. Fluid Mechanics. Engineering Mechanics. Mass and Scale. Capacity, Density, and Fluid Meters. Combustion Controls.

**Organic and Fibrous Materials.** Rubber. Textiles. Paper. Leather. Testing and Specifications. Polymer Structure. Plastics. Dental Research.

**Metallurgy.** Thermal Metallurgy. Chemical Metallurgy. Mechanical Metallurgy. Corrosion. Metal Physics.

**Mineral Products.** Engineering Ceramics. Glass. Refractories. Enameled Metals. Constitution and Microstructure.

**Building Technology.** Structural Engineering. Fire Protection. Air Conditioning, Heating, and Refrigeration. Floor, Roof, and Wall Coverings. Codes and Safety Standards. Heat Transfer. Concreting Materials.

**Applied Mathematics.** Numerical Analysis. Computation. Statistical Engineering. Mathematical Physics.

**Data Processing Systems.** SEAC Engineering Group. Components and Techniques. Digital Circuitry. Digital Systems. Analog Systems. Application Engineering.

• Office of Basic Instrumentation.

• Office of Weights and Measures.

### BOULDER, COLORADO

**Cryogenic Engineering.** Cryogenic Equipment. Cryogenic Processes. Properties of Materials. Gas Liquefaction.

**Radio Propagation Physics.** Upper Atmosphere Research. Ionospheric Research. Regular Propagation Services. Sun-Earth Relationships. VHF Research. Radio Warning Services. Airglow and Aurora. Radio Astronomy and Arctic Propagation.

**Radio Propagation Engineering.** Data Reduction Instrumentation. Modulation Research. Radio Noise. Tropospheric Measurements. Tropospheric Analysis. Propagation Obstacles Engineering. Radio-Meteorology. Lower Atmosphere Physics.

**Radio Standards.** High Frequency Electrical Standards. Radio Broadcast Service. High Frequency Impedance Standards. Electronic Calibration Center. Microwave Physics. Microwave Circuit Standards.

**Radio Communication and Systems.** Low Frequency and Very Low Frequency Research. High Frequency and Very High Frequency Research. Ultra High Frequency and Super High Frequency Research. Modulation Research. Antenna Research. Navigation Systems. Systems Analysis. Field Operations.



